

# American Perfumer

## AND AROMATICS



COSMETICS  
TOILETRIES  
SOAPS

•  
PHARMACEUTICALS  
FOODS  
FLAVORING  
& ADDITIVES

•  
ESSENTIAL OILS

MARCH 1956



THE MAGAZINE OF TASTE AND SCENT



New Shampoo Material... Page 37 • Broth-Like Flavor... Page 59



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COVER: Italy . . . . . Bolzano  
A small shrine by the wayside.  
Courtesy of the Italian State  
Tourist Office.

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MARCH 1956

# American Perfumer AND AROMATICS

NBP

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## MINUTE NEWS . . .

### **W. A. Poucher to be Honored by American Society of Perfumers**

William A. Poucher, F.P.S., F.R.P.S., who for over 25 years has been the chief perfumer and a technical advisor to Yardley of London, will be honored by the American Society of Perfumers for his pioneering scientific contributions to the perfume industry when honorary membership will be conferred on him at its second annual symposium in the Essex House, New York, March 21. Mr. Poucher will be the first honorary member of the Society from outside of the United States. In 1954 he was also the first foreigner to be awarded the coveted medal of the Society of Cosmetic Chemists. In addition to his world wide known work in three volumes "Perfumery, Cosmetics & Soaps" which has run through six editions and has been translated into several languages, Mr. Poucher has contributed many scientific articles to the AMERICAN PERFUMER and other technical publications. He is also the author of 20 books on mountain photography. He was the first honorary member to be elected by the Society of Cosmetic Chemists of Great Britain.

### **No Known Cure for Baldness F. T. C. Examiner Finds**

There is no known cure for baldness, no relief nor effective remedy for the great percentage of cases of baldness which come under the heading of pattern baldness, according to an initial decision by Earl J. Kolb, examiner for the Federal Trade Commission, after a hearing on charges against the Hayr Chemical Co. An order was issued prohibiting the company from representing that its product Hayr will stop the progress of baldness or that it will grow hair. The decision may be appealed. Most baldness it is believed is caused by age, by heredity or by endocrine imbalance. The exact cause is not known to medical science.

### **No Additive Law Preferred by FDA to Idea of Industry**

The Food & Drug Administration is strenuously opposed to the declaratory judgment method of enforcing food additives control legislation as proposed by the food and chemical industries. In his testimony before the science and health subcommittee of the House interstate commerce committee Commissioner George Larrick stated that the Food & Drug Administration would rather have no control legislation than to take it with the declaratory judgment provisions. The assistant general counsel of the Dept. of Health, Education & Welfare, William Goodrich, stated that this was also the considered opinion of the entire department. As a result of this firm stand there is little chance for a compromise. The possibility that any legislation will get through this session of Congress on additives in foods seems therefore unlikely.

### **Fluoridated Toothpaste Defend- ed Against Dental Assn. Attack**

Procter & Gamble Co. manufacturer of Crest toothpaste containing stannous fluoride, on which it is reported to have spent 14 years of research before placing it on the market, has prepared an answer to the American Dental Assn. statement on the inefficiency of fluoridated toothpastes reported in our last issue. The statement reads as follows: "Procter & Gamble at no time has stated or inferred that a fluoride toothpaste was a substitute for controlled fluoridation of a community water supply. The evidence supporting the benefits of fluoridated water in preventing tooth decay is certainly impressive. The fact of the matter is, however, that there are still many millions of people who do not have access to fluoridated water. Even in areas where the fluoride deficiency of the water supply has been corrected, children who were over six years of age at the time the fluoride was added will not receive the maximum benefits from it. Furthermore, there is no evidence that anyone over 12 years of age at the time the water is fluoridated will receive any benefit whatsoever. We believe that Crest toothpaste, containing stannous fluoride, will be of great benefit to these groups."

**Motivation Termed "Light Headed" by Marketing Expert**

Motivation researchers invent ridiculous reasons why people buy merchandise according to Dean Wittenberg, director of marketing for the Pabst Brewing Co. which owns the Hoffman Beverage Co., makers of soft drinks, in an address before the Premium Industry Club. "The psychologists have become the oracles of business. Double-dome professors and crystal gazers are probing the minds of buyers. They are attempting to prove that sales are controlled by the libido or that people buy merchandise because subconsciously they hate their fathers. Of course they have cooked up a fancy name to intrigue the ordinarily hard-headed business man with their light headed fancy. They call their invasion of the advertising and merchandising field motivation research. Premiums that offer customers that "extra something" are a real motivation for buying. Advertising alone will not do the job. Advertising brings people to the product. Proper merchandising brings the product to the people."

**Reasons Why Women Want Perfume Given by Gumbinner**

Depth psychology surveys have been made and although they have failed to uncover one big basic reason for the use of perfume they have given us a number of contributing motivations, Paul Gumbinner secretary of the Lawrence C. Gumbinner Advertising Agency told the C.I.B.S. at its February 9 meeting. "They confirm scientifically," he said, "what we all know by hunch—that women want perfume because: (1) It makes them nice to be near; (2) It makes them feel good and better dressed and more feminine; (3) It gives them a lift in spirit like buying a new hat; (4) Their neighbors have it; and (5) Marilyn Monroe uses it. (It used to be Gloria Swanson.)"

**Lipsticks Promote Rug Cleaning and Lead to New Concern**

To make women conscious of the Magikist name, William Gage of Chicago, owner of the Magikist Rug Cleaners, brought out the Magikist lipstick to promote the business because he felt women are more conscious of items they see and use every day than for rugs which are cleaned at most only once a year. The lipsticks sold so well that a subsidiary company to make and market them is being organized and it is planned to spend \$150,000 annually to advertise them. Mr. Gage believes that women will think of Magikist when the time comes to have rugs cleaned.

**Creative Packaging Should Tie in with Cosmetic Advertising**

Creative packaging should be tied in with cosmetic advertising because good packaging provides the most important link in marketing cosmetics—recognition at the point of sale, according to a joint study by the National Retail Dry Goods Assn. and the Folding Paper Box Assn. It states also "The package should be as interesting as the merchandise to get a good display in a store."

**Colgate-Palmolive to Build Research Center**

Colgate-Palmolive Co. is to build a multi-million dollar research center in Bloomfield, N. J. A 35-acre plot has been acquired for the purpose and the company will consolidate its basic and applied research at the new center where 400 research personnel will work to create new and improved products for future expansion. Pilot plant activities of the company will remain at the Jersey City plant.

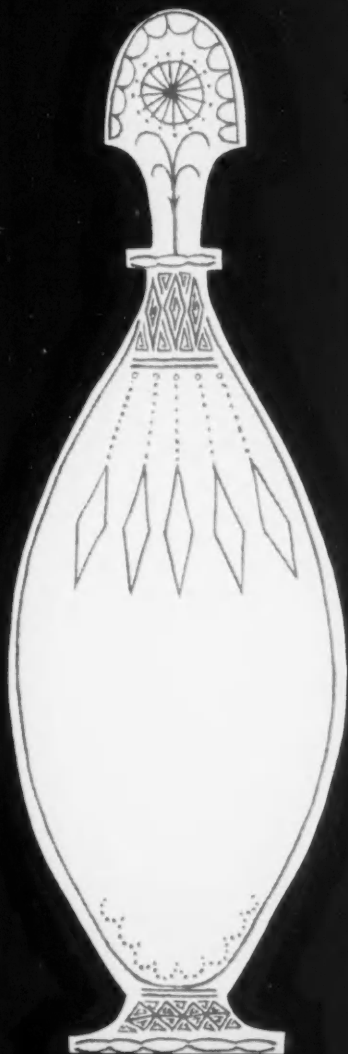
**Dow Chemical Opens Research Laboratory**

Dow Chemical Co. has opened its \$1,100,000 laboratory building for research in biochemistry at Midland, Mich. The one-story air conditioned building about the size of a football field houses 26 laboratories. It was designed by architect Alden B. Dow, a son of Dr. Herbert H. Dow, founder of the company. A major section is provided for scientists "free to explore." They have no obligation for immediate practical results—their responsibility is the future, according to Dr. Don Irish, director.









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# Editorials...

## Business Forecasts . . .

A dozen or more forecasts as to the future of business in the next six months, the next year or the next decade and so on have been issued by various Wall Street houses and by some of the houses in the allied trades. Some, it must be admitted sound convincing; but all are subject to serious error. While many useful techniques and tools to fortify our judgements about the future have been developed, random factors are so important that the accuracy of forecasts is still chiefly a function of time. As yet there is no acceptable science of forecasting.

## Food Additives Deadlock . . .

Controversy over the food additives bills continues and at the moment it appears that the Food & Drug Administration and the food and chemical industries are in a deadlock. The claim of the Administration that the O'Hara-Priest bills would make it necessary for the Secretary of Health, Education and Welfare to obtain a supporting court ruling every time he gave an adverse opinion on the safety of a new food additive is subject to analysis.

Counsel for the food and chemical industries has argued with force that any proponent of a chemical additive that had been ruled on adversely could use it only at his peril. If he used it the Administration could institute proceedings at any time by declaratory judgment action, by injunction or by libel and condemnation proceedings; and the Department of Justice could prosecute criminally at any time after such use.

It is very doubtful whether any manufacturer would use an additive carrying the stamp of disapproval of the Food & Drug Administration without first obtaining a court judgment establishing its safety or that the Administration would be so impractical as to institute a suit without reasonable cause to believe that the proponent is using or intends to use the additive.

In suits for a declaratory judgment the FDA would have the burden of proof in the first instance but the burden of proving the adequacy of the pre-testing to show the safety of the additive would rest with the manufacturer.

## Are Employees' Suggestions Worth While? . . .

To overcome the feeling among employees that they are just cogs in a machine, which is depressing to the employee and not helpful to the morale and efficiency of the business, enlightened management encourages suggestions from employees. Obviously, for instance, an employee operating a steam heated mixing kettle day after day or a salesman out on the firing line is more familiar with the difficulties of his work than the executive at the head of the business; and very often the employee has ideas born of experience, which would make his work more efficient. Astute executives know that; and take advantage of it. That the policy of encouraging

employees to give their ideas on how a particular task should be done or ideas on changes that might be profitable in the operation of the business has worked out well is shown by the experience of a number of highly successful companies.

The Remington-Rand Division of Sperry-Rand, which actively solicits ideas from employees on how the business should be run in 1955 adopted 3,967 such suggestions for which it paid \$37,867. Last year General Motors Corp. paid \$3,225,741 for 54,635 suggestions it adopted. In the last 14 years, incidentally, it has paid \$17,000,000 for ideas from employees. Ford Motor Co. in 1955 paid \$1,022,228 for 15,749 suggestions.

In the foregoing companies for the first time suggestions for eliminating red tape, needless paper work and much useless accounting exceeded the number of suggestions received for improving production methods and ideas for bettering the product manufactured. No guess has been made as to how much has been saved by adopting the suggestions of employees but executives of the foregoing companies estimate that it runs into the millions. Equally important it builds up team spirit throughout the entire organization.

## Motivation Research . . .

Granting that a change must take place in consumer thinking about a product before it is reflected in sales and that motivation research about which we are hearing so much does uncover the consumer's latent motives, that clearly is not enough. It is still necessary to teach the consumer that if he wishes to satisfy his motives he must buy a particular brand—your brand for instance. To do that, well considered advertising must be employed. Uncovering motive is no more than the first step in selling.

## Two 150 Year Anniversaries . . .

Respectable men were slave owners, whale oil lamps and candles furnished artificial illumination, travel was chiefly by stage coach as very few canals had been built to handle the fast growing population of the United States back in 1806 when William Colgate embarked in business as a soap maker. In the span of 150 years since then the modest enterprise founded by Mr. Colgate has grown into a giant corporation with numerous factories and branch offices doing a world wide business running far into the millions. Very few American companies founded so long ago have survived the wars and depressions and the ever changing complexion of business. Such an enterprise could only have grown and prospered because its products were sound and its management enlightened. Another good concern, the French perfumery house of Roger & Gallet also has its 150th anniversary this year.

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# BOOK

## Reviews

**SAVONS ET DETERGENTS**, by J. Bergeron, Librairie Armand Colin, 1954. 199 pages, 4½ x 6½ inches, paper covered, in French, illustrated and indexed. Price 250 Francs.

One hundred twenty-two pages are devoted to soaps. A little more than forty pages cover the "detergents."

The soap section is far better than that dealing with surfactants (detergents). The latter is not very complete. The three major classes, namely, anionic, nonionic and cationic are reviewed in a very elementary manner.

Typical of some prewar low priced books, the present volume is paper covered and the pages themselves are uncut.—M. G. deN.

**THE EXTRA PHARMACOPOEIA (Martindale) Volume II. 23rd Edition.** The Pharmaceutical Press, London W.C. 1, England. (U. S. agent Rittenhouse Bookstore Philadelphia, Pa.) 1955. 5½ x 5½ in., 1501 pages, indexed. Price \$11.50.

At least twenty people helped revise this edition, each an expert in his field. Such assistance keeps this valuable reference as a most useful pharmaceutical book.

The new sections are too numerous to mention. However, it can be said that the book includes material from the new B.P. and B.P.C. which have come into use since 1954.

All monographs start with B.P. listing followed by B.P.C. then U.S.P. and N.F.

Macrogol, the equivalent of polyethylene glycol, is discussed together with the cetomacrogols and polysorbate (80) U.S.P.

To the reviewer, the most useful parts of this book are the sections starting with page 447 dealing with methods of analysis and subsequent material. Chromatography is well described. A useful section on comparing U. S.

and British colors for foods, drugs and cosmetics is given. Almost 100 pages are devoted to food analysis while about 110 pages are given to drug analysis. Other sections deal with such subjects as compressed tablets, disinfectants, vitamins (42 pages), clinical biochemistry, water analysis and many others.

This is truly an *extra* pharmacopoeia. The reviewer has used two previous editions and looks forward to the use of the present one.—M. G. deN.

**CHEMICAL TRADE NAMES AND COMMERCIAL SYNONYMS**, by William Haynes, D. Van Nostrand Co., Inc., New York 3, N. Y. 1955. 466 pages, 6 x 9 inches. Price \$8.00.

A second edition of an earlier work, the present volume includes about 25 per cent more material making a total of some 20,000 special names used throughout the modern chemical industry.

What to add and what to leave out? How extensive shall the listing be? Shall all types of a given product used to fill a lot of space? Users and reviewers will not agree.

One gathers from the title that the book treats its listings briefly and indeed this is the case. It enables one to find out what a trade named material truly is and who makes it. To this reviewer, that is the function of such a book. The author has achieved this purpose.

But this reviewer is afraid that there are many thousand more listings needed to get the thorough coverage of industries using chemicals. The toilet goods industry alone is poorly represented, though quite a number of perfume compounds are mentioned. Parasepts, Krim Kogel and Filtrosol are just a few of the cosmetic materials not present.

Suppliers names are all given alphabetically and presumably up to date at the time of publication. However, Ed-

wal Laboratories, Krim-Ko Company, El Dorado Oil Works and Innis Speiden and Company to name some are incorrectly listed; all are now known by different names.

Only a few typographical errors were noted, as *hydrostate* for hydrolysate under Edamin, ethyl tergosept for ethyl tegosept, Felba for Falba. But keeping such a list of trade names straight is in truth difficult, although if improperly spelled, one may not find the entry desired.

Even so, the book is useful as a source of many valuable data. The few shortcomings mentioned will undoubtedly be corrected in a later edition. It is well printed—better than the earlier edition.—M. G. deN.

**SANITARY CHEMICALS**, by Leonard Schwarcz, MacNair-Dorland Co., 576 pages, 6 x 9 inches, illustrated and indexed. Price. \$8.00.

This is a revision of the 1943 edition of what was then called Sanitary Products. The author's untimely death during the revision forced the publisher to get one or more people, experts in their field, to complete the revision. Sixteen people helped in this work.

One is somehow led to believe that the book is full of formulas, which it is not. A few formulas for floor wax, many for detergents and cleansers and a few insecticide compositions are about all that are given. The balance of the book discusses various aspects of the host of products mentioned without giving suggested formulas.

A number of chapters cover test methods, labeling and packaging. The chapter on surface active agents is poor though it contains six formulas giving synthetic detergent containing compositions.

The title of this book gives the author an excellent opportunity to do a service to a growing industry. In this reviewer's opinion, the book has not fulfilled its title objective.—M. G. deN.



## DESIDERATA

Maison G. deNavarre, F.A.I.C.



### Is Soap Shampoo Soap?

Sounds silly doesn't it? Yet for freight purposes soap shampoo is not a soap it seems.

Since it is established beyond a shadow of a doubt that brushless shaving cream is a superfatted soap, why can't the same people understand that soap in bar form, powder, paste or dissolved in water is still soap no matter how you look at it? Sure, soap for one purpose may be more refined than for another. Or the cut of fatty acids used must be carefully selected for special properties. Perhaps the alkali will vary from one kind of soap to another. The water content can vary. The modifiers can vary. But soap is still soap and it doesn't take too much of an expert to follow that reasoning. Just get a simple chemistry textbook or a dictionary. The basic facts are there. The changing of the alkali, water, modifiers or fatty base doesn't alter the facts.

It must be that the simplest things are the hardest to see or understand.

### Nail Polish Analysis

In the J. Assoc. Off. Agr. Chem., 39, 259, 1956, Newburger offers a modification of an earlier procedure for separating nitrocellulose from pigments. The method is so good that the isolated nitrocellulose is off-white to faint pink in color.

The method is an addition to an earlier one published in the same journal 38, 524, 1955. Analysts please note.

One can easily see why Dr. Newburger spends such long hours in his Department of Agriculture laboratory.

### Phytosterols

It is easy to theorize on what "might" take place in any situation; to prove it is another matter.

On the theory that atherosclerosis is caused by faulty metabolism, depositing cholesterol in the arteries, and further, on the basis that feeding tests on animals, the phytosterols reduce serum cholesterol levels, it was easy to translate this into possible usefulness in man.

In a symposium on the subject at the New York Academy of Sciences, the reports were exceedingly encouraging. Sitosterol was the sterol used in many of the reported experiments. A good portion of the work was on man.

So what has all this to do with cosmetics?

Just this. If lanolin sterols are absorbed by the skin they may be a problem in cases of atherosclerosis. Maybe the addition of a certain ratio of phytosterol (soybean derived) would "neutralize" the cholesterol effect.

How could you tell if the cholesterol was absorbed? "Tag" it! Check its fate on animals when applied to the skin. Then try a mixture of tagged cholesterol and phytosterol. The results would be most interesting. Commercial phytosterols are derived from soybean oil. The material contains about 95

per cent minimum sterols. The sterols are a mixture of 10-15 per cent stigmasterol and 75-80 per cent sitosterols, the balance being various unidentified sterols.

### Is It Patentable?

Can you patent a material obtained in its natural form from a plant or animal? Is it discovery? The U. S. Patent office has said no to one case involving a compound that exists in the human body along with other materials. The patentee wanted to patent the purified material.

The U. S. District Court has overruled the Patent office and say that the patent office has overlooked the fact that the material is more valuable in purified form.

Well, maybe so. Pure penicillin is more valuable than the "crude" extract. Pure insulin is more valuable than the less elaborated material.

But the geraniol isolated from Rose Otto is *not* more valuable than the Otto himself. Is the benzyl acetate in Jasmin absolute more valuable when purified by extraction than the absolute?

I think it all depends on what is extracted from what, that determines value, not the mere fact that a pure material has been extracted from a mixture.

### Notes

Seems to me we are going too far when we use tetracycline type antibiotics in preserving chickens—others use it for fattening animals

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used for food, still others put it in the soil and so on—so long as we don't disrupt certain microbia ratios, everything is fine—but when we do, only heaven knows what will happen in the end. . . . DuPont started publishing a new house organ on aerosols entitled "Aerosol News"—in it we find that aerosol shave creams have climbed from 2 per cent of preference in 1951 to 27 per cent in 1955. It would make interesting hearing to listen to the toiletries executive's explanation NOW of his January, 1954 statement that perfumes were more important beauty aids than cosmetics—all this after plugging his 25 hour lipstick for these many months. . . . Large users of fatty acids might consider the Blaw Knox fat splitter which supplies 500 pounds per hour—a product equal to distilled fatty acids is produced, substantially below the market price. . . . The article by Freese and Andersen on an amphoteric surfactant series in shampoos, will be available in reprint form from the authors. . . . It is understood that Madam Chanel selected "No. 5" as a name for that certain fragrance because it was her lucky number—wonder how the other numbers originated. . . . Congratulations to Freddy Wells for getting the article on hormone creams from a British doctor—it must have been as easy as finding a new oasis in the desert. . . . It is true that certain nonionics will "complex" the p-hydroxybenzoates rendering them useless as preservatives—they'll do it to a lot of phenolic antiseptics too—yea, perhaps some antibiotics too. . . . There are a series of new synthetic oils with low chill point and good alcohol solubility. . . . Does anyone know the supplier of QUINZEEN? Have a call for it. . . . Often wondered about how many of my readers were stamp collectors too—especially those outside the U. S. A. . . .

#### European Technical Digests

The best articles from 1000 European technical journals, translated and digested are now available. The Organization for European Economic Cooperation, 2000 P St. NW, Washington 6, D. C. will distribute its 140 page Technical Digests monthly for \$24 per year—single copies \$2.50. Almost all fields of industrial interest are covered: chemicals, foods and allied products, packaging, materials handling, corrosion, etc.





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Heine and Company is resuming full production. Mr. Frederick C. Keidel, long distinguished in the field, will be Chief Perfumer, assisted by a staff of competent perfumers and chemists. Mr. Chester Tompkins will be in charge of sales.

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Most widely used in cosmetic compositions.

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601 W. 26th St., New York 1, N. Y.





# QUESTIONS & ANSWERS

## 1183: Lipstick Formula

**Q.** The following is a lipstick formula we have been using (formula given). We find that the product does not stay on and is too soft. We understand that Eosin Myristate added to a lipstick formula will tend to make it more lasting. Do you know and will you advise us who manufactures this product? We would appreciate a formula which you feel would work better than the above. Would you be good enough to include proportionate amounts of colors E.C.T., Calif.

**A.** The attached formula is attributed to Fishbach and was part of a paper presented before the Society of Cosmetic Chemists recently. It's the best we can suggest. Eosin myristate is not a commercial article, as far as we know, but is made by dissolving eosin in myristic acid. Be sure to use certified eosin. As for colors, we can suggest none, nor can we suggest any amount as these vary with the shade. You will have to use your own skill in this regard. You might write to Ansbacher-Siegle Corp., or H. Kohnstamm and Co. Thomasett colors are sold by Whitaker, Clark & Daniels. You can obtain samples of colors useful in lipstick from them. Combine these in the desired ratios to get your respective shades.

Lipstick formula: castor oil 60, propylene glycol monoricinoleate 10, lanolin 5, polyethylene glycol (400) 5, beeswax 7, candeilla wax 7, ozokerite 3, carnauba wax 3, propyl p-hydroxybenzoate 0.2, halogenated fluorescein 3, certified lake colors 12.

## 1184: Bubble Bath Formula

**Q.** We would like your suggestion for a liquid bubble bath formula. C.L., N.Y.

**A.** You might try the following combination, with increase or decrease of the lauryl sulfate to meet your cost level.

Triethanolamine lauryl sulfate (50%) 30%, lauryl diethanolamide 10%, H<sub>2</sub>O, color and perfume q.s. 60%.

## 1185: Waterless Hand Cleaner

**Q.** We want information regarding a good waterless hand cleaner formula. We have tried several which have proved unsatisfactory because they break down to a liquid after a short period. We would be sincerely grateful if you would oblige us with a good stable formula. P.O.R., Arizona.

**A.** The following is a formula for a waterless hand cleaner on which you can start and elaborate to suit your needs:

Detergent 6.25%, sorbitol sesquileate 1.25%, sodium carboxymethyl cellulose (CMC) 2.50%, water 90.00%, preservative a trace. Dissolve the sodium CMC in the water with heating. Add to this the detergent, sorbitol sesquileate and preservative.

The detergent and sorbitol sesquileate may be purchased from the Atlas Powder Co.

## 1186: Pressing Oil

**Q.** I seek your aid in compounding a pomade for Negro hair and also a pressing oil to take out the kinks. I will appreciate anything along this line, as I am informed there is a good market for these products. S.C.Y., New York.

**A.** Generally speaking, pressing oil is a heavy mineral oil, suitably colored and perfumed. As for Negro hair pomades, these are petrolatum-lanolin-wax combination of a high melting point. The product should have tremendous stickiness.

## ATTENTION: Perfumers

Regardless of your problem, be it simply stretching your stocks of Rose and Jasmin, Neroli and Orange Absolute, or meeting cost accounting limits without major sacrifice to quality standards, we respectfully urge your evaluation of the following Synarome specialties:

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PERFUME BOTTLES**

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of the world



NN 9073/1 oz.  
NN 9073/½ oz.  
NN 9073/¼ oz.

Satin matted ground-  
in stoppers or cut  
ground-in stoppers.



NN 9072/2 oz.  
NN 9072/½ oz.  
NN 9072/¼ oz.  
Cut ground-in stop-  
pers.

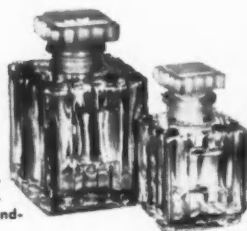


NN 9073/1 oz.  
NN 9073/½ oz.  
NN 9073/¼ oz.

Satin matted ground-  
in stoppers or cut  
ground-in stoppers.



ROM 9077/1 oz.  
ROM 9077/½ oz.  
ROM 9077/¼ oz.  
Satin matted ground-  
in stoppers.



MR. PERFUMER—presented are new styles in CRYSTAL PERFUME BOTTLES designed  
in Paris and made in France to complement and aid in selling your product.

Import prestige distinction will be expressed with the use of these  
perfume bottles as each one is clearly indicated—MADE IN FRANCE.

Write for complete details and  
prices. You will be surprised  
at their low cost!



DAR 9074/9 oz.  
DAR 9074/3½ oz.  
DAR 9074/2 oz.  
DAR 9074/1 oz.  
DAR 9074/½ oz.  
Satin matted ground-  
in stoppers.



PC 9075/2 oz.  
PC 9075/1 oz.  
PC 9075/½ oz.  
Satin matted ground-  
in stoppers.



ROM 9078/1 oz.  
ROM 9078/½ oz.  
Satin matted ground-  
in stoppers.



PC 9076/2 oz.  
PC 9076/1 oz.  
PC 9076/½ oz.  
PC 9076/¼ oz.  
Cut ground-  
in stoppers.

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American affiliate of UNIVER-FRANCE comprising more than 50 crystal and glass factories who employ 20,000 workers.



# Shampoo Uses

A New Amphoteric Surfactant Series  
For Shampoo Use

R. G. Freese and D. L. Andersen\*

A NEW, structurally simple, type of amphoteric surfactant is currently being introduced on a semi-commercial scale by General Mills, Inc., under the trade name Deriphats. Emphasis is being placed on its use in shampoos.

The Deriphats are salts of N-alkyl  $\beta$ -aminopropionates and may be represented as follows:  $\text{RNHCH}_2\text{CH}_2\text{COO}^-\text{X}^+$ . The "R" represents a fatty group derived from such acids as tallow, coco or lauric and "X," either a sodium or triethanolamine. Since  $\beta$ -aminopropionic acid is  $\beta$ -ala-

nine, these products are also referred to as N-substituted  $\beta$ -alanines. For shampoo applications the lauric-based compounds (I, II\*\*) sodium and triethanolamine salts respectively, are most promising. The tallow counterpart (III) is most suited for textiles, corrosion inhibition, and in lubrication applications. The coco derivative (IV) is finding its place in detergent-sanitizers, foam stabilization, and liquid detergents.

The words "amphoteric" or "ampholytic" are used interchangeably to refer to surface active agents which contain both cationic and anionic groups within one molecule. Most frequently the cationic centers are secondary or tertiary amine linkages, or quaternary am-

\*General Mills, Inc., Research Laboratories, Minneapolis 13, Minnesota.  
\*\*Roman numerals refer to individual detergent products. See listing at end of article.

monium chloride groups. The anionic properties of the molecule are provided almost invariably by metallic or organic salts of a carboxylic acid. Products of this type may have single or multiple amine, or single or multiple carboxyl, groupings. The  $\beta$ -aminopropionates with one amine and one carboxyl are, therefore, representative of the most simple amphoteries.

Interesting variations on the amphoteric theme are represented by solubilized versions of the Deriphat products V and VI. These products have excellent water solubility, the ability to solubilize various organic materials and demonstrate extreme mildness.

All Deriphat sodium salts are offered as 98 per cent solids in a white flaked form. Actually, in appearance

rivative II is equivalent in foam volume to any product which we have evaluated.

## 2. Foam Texture

Foam is open and loose when generated in hand washing. On the hair, however, this is not as evident. When combined with minor amounts of alkylolamides or alcohol sulfates, foam texture is good, even in hand washing. Conversely, when used as a minor additive to alcohol sulfates, it (II) improves foam texture.

## 3. Hard Water Foaming

This is probably the most outstanding feature of the aminopropionate series. Solutions of this ampholyte

Product	Compatibility at Specific Ratios Product to Deriphat XD-150B				
	1:4	1:2	1:1	2:1	4:1
Triethanolamine salt of lauryl alcohol sulfates	comp.	comp.	inc.	comp.	comp.
Sodium salt of lauryl alcohol sulfates	comp.	inc.	inc.	inc.	comp.
TEA laurate	comp.	comp.	comp.	comp.	comp.
Sodium laurate	comp.	comp.	comp.	comp.	comp.
Nonylphenol ethylene oxide condensates	comp.	comp.	comp.	comp.	comp.
Lauryl diethanolamides	comp.	comp.	comp.	comp.	comp.
Dimethyl lauryl benzyl ammonium chloride*	comp.	comp.	comp.	comp.	comp.

\*This quaternary ammonium chloride is unaffected in regard to germicidal potency up to a ratio of 17 parts Deriphat XD-150B to one part quat.

Table 1—Compatibility Table for Deriphat XD-150B\*\*

and feel, they resemble soap flakes. The TEA salt, (II) however, is a 50 per cent active water-paste.

## Physical and Performance Characteristics

### As Related to Shampoo Use

The triethanolamine salt of lauryl  $\beta$ -aminopropionate (II) is significantly more soluble than the corresponding sodium salt product (I). Apparently because of its superior solubility and amphoteric character it demonstrates a surprising range of compatibility. (See Table 1.)

### Foaming Properties

In laboratory work on the foaming properties of these amphoteric surfactants, consideration was given first to learning the general behavior pattern of these products with respect to various influences such as pH, water hardness, various soils, etc. This work was done principally by using such artificial techniques as the Ross-Miles method and a variety of "shaker" tests. After establishing this base, confirmatory "practical use" tests were used (the "half-head") shampoo tests; and for other fields, special clotheswashing and dishwashing tests).

The following information on foaming properties of the triethanolamine derivative (II) was evolved as the result of these experiments:

#### 1. Foam Volume

Under optimum conditions the triethanolamine de-

(II) are essentially clear in 250 ppm. water and foam as well as in soft water. The sodium salt form (I) may have some slight advantage in foam volume throughout the water hardness scale over the TEA salt product (II), but this is hard to pinpoint due to the difference in molecular weights. Addition of the triethanolamine derivative to other syndets improves overall hard water performance, since it apparently combines with the calcium ion preferentially, and its calcium salt has good solubility.

#### 4. Effect of pH Changes on Foaming

The "natural" pH of triethanolamine lauryl  $\beta$ -aminopropionate is 8.2-8.4. While its foam volume is greatest here, little actual change in foaming can be noted over the pH range of 6.5-9.5. The behavior of the sodium salts with regard to alkali or acid addition is discussed below.

#### 5. Foam Lubricity

The foam of the triethanolamine derivative II, as might be anticipated, shows a soap-like lubrication when used as a shampoo. Whether this effect will be evident in a completed formulation depends, of course, on the type of formulation and the percentages of these amphoteric surfactants employed.

#### 6. Foam Stabilization

The triethanolamine salt II shows a very decided foam stabilization action as measured in both dynamic and static tests. This is particularly true when it is used as an additive to alcohol sulfates and co-coates or laurates. In use with alcohol sulfates, however, care must be taken not to exceed a one to three ratio of ampholyte to alcohol sulfate to avoid incompatibility. The solubilized derivatives V and VI do

\*\*These compatibility data represent "natural" pH solutions which, because of the buffering action of Deriphat XD-150B, are in the range of pH 8.0 to pH 8.5.



not appear to have any foam stabilization properties. Generally, the foam of combinations of any of these amphoteric with certain foaming cationic surfactants, seems to be stable and of good volume and texture.

## 7. "Flash" Foam Properties

Neither the sodium or triethanolamine derivatives have the resistance of soap to oily soils. The foaming of these compounds on first application to a heavily soiled head is equal to, but offers no improvement over, presently used syndets. Its flash foam, however, can be significantly improved by modification with soap, alkylolamides and, less satisfactorily, with alcohol sulfates.

### Cationic Properties

The secondary amine linkage in the parent structure confers certain definite cationic properties. In the pH range of use, these cationic properties are not particularly strong with the lauric derivatives (I, II) but are sufficient to offer some definitely interesting possibilities to the shampoo formulator. The bacteriostatic action, for example, is stronger than that of most anionic or nonionic surfactants, but is inferior to that of quaternaries.

There are a number of indirect evidences that the triethanolamine compound is substantive to the hair. In extensive work in textile applications, the tallow III

dium and TEA alcohol sulfates at a 10 per cent concentration. In general, they both appear to be about equivalent to a TEA alcohol sulfate and slightly better than a sodium alcohol sulfate. In no case was any permanent cornea damage in evidence.

### Characteristics of the Sodium Salts of Lauryl and Coco $\beta$ -aminopropionates (I and IV)

These products are white flakes containing 98 per cent solids and 2 per cent moisture. Their active ingredient content is approximately 97 per cent. A 10 per cent solution of either I or IV will have a high pH of approximately 11.5. They can be neutralized with any mineral or organic acid but organic acids such as citric appear most satisfactory. Optimum pH in regard to performance is in the range of 6.5-9.5. The influence of pH on its performance will be discussed below.

The sodium and triethanolamine lauryl derivatives (I and II) are compared in regard to compatibility in Tables 1 and 2. The primary difference is that the sodium lauryl compound (I), cannot be used in as high proportions with anionic surfactants as the corresponding triethanolamine derivative (II). For example, about one part of (I) to five parts of a sodium alcohol sulfate appears to be the upper limit, whereas one part of (II) can be used with three parts of a TEA alcohol sulfate without incompatibility. As might be expected, sodium coco  $\beta$ -aminopropionate (IV) has a very similar com-

Product	Compatibility at Specific Ratios Product to Deriphat							
	1:9	1:6	1:4	1:1	2:1	4:1	6:1	9:1
Triethanolamine salt of lauryl alcohol sulfates	comp.	comp.	inc.	inc.	inc.	inc.	inc.	comp.
Sodium salt of lauryl alcohol sulfates	comp.	inc.	inc.	inc.	inc.	inc.	inc.	inc.
TEA laurate	comp.	comp.	comp.	comp.	comp.	inc.	comp.	comp.
Sodium laurate	comp.	comp.	comp.	comp.	comp.	inc.	inc.	inc.
Nonylphenol ethylene oxide condensates	comp.	comp.	comp.	comp.	comp.	comp.	comp.	comp.
Lauryl diethanolamides	comp.	comp.	comp.	comp.	comp.	comp.	comp.	comp.
Dimethyl lauryl benzyl ammonium chloride	comp.	comp.	comp.	comp.	comp.	comp.	comp.	comp.

Table 2—Compatibility Table for Deriphat XD-150A\*

counterpart to these lauric-based amphoteric has been shown to adsorb on a variety of fibers, including wool. While the triethanolamine lauryl compound is certainly much less substantive, there appears to be appreciable adsorption on the hair. The difficulties in measuring the conditioning action on hair quantitatively are too well known to require elaboration here. The work done along these lines, however, offers evidence that this material (II), is advantageous in regard to softening and conditioning hair over conventional anionic materials. Too, because of the Deriphat's compatibility with cationic surfactants, this conditioning action can be bolstered by addition of small amounts of cationic softening agents. Much the same is true of the antistatic properties of II. While very evident with the tallow derivative III, derivative II has modest antistatic properties. Improvement in hair "fly" is, however, a real prospect.

A series of Draize rabbit eye irritation tests have been run on I and II (pH 8.0) in comparison with so-

patibility pattern to its sodium lauryl counterpart (I).

Solutions of I are quite viscous at pH 7.0 to 9.0. Sodium coco  $\beta$ -aminopropionate (IV) is, however, much more viscous than I and appears to be the best thickening agent in this series.

As indicated earlier, solutions of the sodium salt forms must be lowered in pH before use.

Solutions (10-20 per cent) of I and IV, as initially prepared, will be low in viscosity, but upon sufficient acid addition to lower the pH to approximately 9.5, a very sharp increase in viscosity occurs. Compound IV will form a gel at 15 per cent concentrations.

As the pH is lowered down to approximately 6.0, viscosity drops off slowly. From 6.0 to 4.5 is found the isoelectric range of these coco-derived products. In this range they become insoluble and precipitate nearly quantitatively from solution, as the zwitterion. Further acid addition will again solubilize these materials and they again become functional.

As the pH of I and IV solutions are lowered, approaching the isoelectric range, increasing proportions of the zwitterion are formed.

\*In general, these compatibility data apply over the ordinary use pH range of 6.5 to 9.5.

A rather peculiar change in hard water foaming occurs with both I and IV as the pH change from approximately 10.0 to 9.0 is made. At pH 10.0, in 250 ppm.

On the other hand, VI has been shown to be extremely mild in repeated insult patch tests and in the Draize rabbit eye tests. Like the other Deriphats, VI is a good

Product	Compatibility at Specific Ratios Product to Deriphat							
	1:9	1:6	1:4	1:1	2:1	4:1	6:1	9:1
Triethanolamine salt of lauryl alcohol sulfates	comp.	comp.	inc.	inc.	inc.	comp.	comp.	comp.
Sodium salt of lauryl alcohol sulfates	inc.	inc.	inc.	inc.	inc.	inc.	inc.	inc.
TEA laurate	comp.	comp.	comp.	comp.	comp.	comp.	comp.	comp.
Sodium laurate	comp.	comp.	comp.	comp.	comp.	inc.	inc.	inc.
Nonylphenol ethylene oxide condensates	comp.	comp.	comp.	comp.	comp.	comp.	comp.	comp.
Lauryl diethanolamides	comp.	comp.	comp.	comp.	comp.	comp.	comp.	inc.
Dimethyl lauryl benzyl ammonium chloride	comp.	comp.	comp.	comp.	comp.	comp.	comp.	comp.

Table 3—Compatibility Table for Deriphat XD-160\*

water, solutions at use concentrations of both of these products form a haze and possess only about 75 per cent of their soft water foaming. However, once below this point, water hardness seems to have no influence on solution clarity or foaming.

An interesting sidelight on these products is their positive corrosion inhibiting properties. It shares this ability with the other Deriphats. The corrosion of a test strip of 1020 mild steel immersed in an open beaker containing 150 ppm. of I or II will be markedly inhibited for a period of weeks. The corrosion inhibition of the Deriphat series is of especial interest in aerosol applications.

#### Germicidal Properties

The foaming properties and the "cationic" behavior of I appear to be essentially equivalent to that of II. Compound I is slightly more effective germicidally than II. The sodium salt (I) at 500 ppm. (pH 8.0-9.0) will give an almost complete kill against *E. coli* on two minute exposure. One thousand ppm. of triethanolamine salt II is required to achieve the same effect.

#### Specific Physical and Performance Characteristics of "Solubilized" Types

A solubilized version of I (VI), resembles I physically in that it is also a white flaked product at approximately 98 per cent solids and 2 per cent moisture. In addition, its solutions are high in pH and must be neutralized to a pH range to 7.0 to 9.0.

Compound VI demonstrates superior compatibility with anionic surfactants, yet appears to be completely compatible with quaternaries. (See Table 3.)

The volume of foam from VI runs about 75-80 per cent of that obtained with I throughout the practical water hardness range. Its foaming abilities, though, appear to respond to typical building techniques exceptionally well and have been formulated into a highly satisfactory foamer for shampoo use. It is not recommended for foam stabilization with alcohol sulfates and soaps. Under static conditions, VI will give a very stable foam with alcohol sulfates. This does not appear to be the case under dynamic conditions, however.

corrosion inhibitor. Too, this product is uniquely effective in solubilizing various organic materials. For example, it will form a clear solution in combination with such water insoluble fatty quaternaries as dicoco dimethyl quaternary ammonium chloride. It also is useful in solubilizing phenolic germicides. Resistance to "salt-ing-out" action is another outstanding feature of VI.

#### Key to Deriphats

I	Deriphat XD-150 A	(Sodium lauryl $\beta$ -aminopropionate)
II	Deriphat XD-150 B	(TEA lauryl $\beta$ -aminopropionate)
III	Deriphat XD-157	(Sodium tallow $\beta$ -aminopropionate)
IV	Deriphat XD-151	(Sodium coco $\beta$ -aminopropionate)
V	Deriphat XD-154	("Solubilized" version of Deriphat XD-157)
VI	Deriphat XD-160	("Solubilized" version of Deriphat XD-150 A)



\*In general, these compatibility data apply over the ordinary use pH range of 6.5 to 9.5.

"Please don't. I left my sales resistance on my dresser."

# STEAM DISTILLATION of ROSE OTTO in PAKISTAN



Dr. Sultan Ahmad Tremazi<sup>\*</sup>

THE charms and delightful fragrance of rose is known and appreciated the world over today. Since earliest antiquity these qualities have caused it to be regarded as the queen of flowers, and ancient literature contains many references to it. The perfume of roses was first extracted by placing the petals in oil and fats. They are then used as unguents.

The distillation of roses probably originated in Persia at a very remote period, which may quite conceivably ante-date the Christian era. The art of distillation was probably introduced into western countries by the Arabs in the tenth century and the first country in Europe to employ it was Spain.

It is curious that no mention is made of rose otto until 1574, when small drops of it were found floating on the surface of rose water by Geronimo Rossi at Ravenna. Its discovery by Persians (1612) is associated with one of the Grand Moguls who filled the canals in his gardens with rose water. One of the princesses noticed a scum floating on the surface which she caused to be collected. This was found to be intensely odorous and was highly treasured by her. The production of rose otto at Shiraz dates from this period. About the seventeenth century rose cultivation spread from Persia to India, North Africa and Turkey, and in the year 1710 was established for the first time in Bulgaria. In more recent years the plant was cultivated in England, France and Germany, but the commercial distillation of oil was not begun in France until the end of the 19th century.

<sup>\*</sup>M.Sc. (Agri.), M.S. Southwestern (Texas), Ph.D. (Pb.), P.S.A. II, Assistant Oil Technologist, Oilseeds Section, Agricultural College & Research Institute, Lyallpur (Pakistan).

Since its first production, otto of rose has been much esteemed as a perfume, and until a few years ago the demand was generally greater than the supply. Currently the decreased demand for rose otto, the keen competition for quality among distillers, and a greater knowledge and experience among buyers have led to the production of oils of exquisite quality. Naturally these are more costly, and buyers who insist on forcing down the price will still get oils which analyze as "pure" but which would never be acceptable to an experienced nose.

The finest and most powerful form in which the rose perfume can be obtained is undoubtedly the otto, which is the product of distillation. Unfortunately, however, owing to the loss of phenyl ethyl alcohol, a large proportion of which remains dissolved in the rose water, the otto does not accurately represent the flower odor. This is more nearly approximated by the "absolute," obtained by means of volatile solvents. This method of extraction is largely employed in the south of France and to some extent in Bulgaria. The perfume may be extracted in the form of pomade by maceration. In a few instances when rose water is produced, the oil which contains the most highly odorous constituents and all the stearoptene is separated. This is the most expensive otto obtainable.

Choa Saidan Shah, locally known as little Kashmir of the Punjab, is a small town in the valley of the salt range in the Jhelum District. The climate of this town very much suited for cultivation of roses of good quality and distillers from all over Pakistan visit this place annually in March and April for distillation of rose water. No attempt is made, however, by the perfumers to

collect rose otto, and only a little quantity of it is distilled over sandalwood base.

Pure rose otto was distilled for the first time in this country at Choa Saidan Shah in a modern essential oil still during the year 1951 (March and April) under a scheme of research financed by the Punjab Government on "Technological and Biochemical Aspects of Oilseeds." The flowers were collected before they begin to open and while covered with dew. The perfume is then at its best, as those which are gathered later in the day emit a more powerful but less sweet fragrance. The residuary rose water remaining after each operation was re-employed. It is obvious that the progressive concentration of extractive matter in these residuary waters will raise the boiling-point and cause constituents to be carried over with the distillate which increase the yield of oil. The oil, which floats to the surface of the receivers, is a yellowish green product. The rose water was redistilled (cohonated) and the oil which separates was mixed with that previously collected. The whole yields the rose otto of commerce. The properties of this steam distilled oil of rose were determined and are given below:

Yield of oil:	.004%
Refractive Index at 28°C:	1.562
Acid value:	3.94
Iodine value:	35.3
Saponification value:	39.6

Grateful acknowledgment is made of M. Anwar Ali Bhatti, Research Assistant in the Oil Technology Laboratory, Lyallpur (Pakistan), for carrying out the distillation of rose otto at Choa Saidan Shah.

## LAVENDER AND LAVANDIN OILS MARKET

*From our Grasse, France correspondent*

Three months after the 1955 season, it becomes possible to have an idea of the lavender and lavandin oils market situation in France.

Everyone knows that both crops have widely exceeded all expectation.

The production of lavender oil occurred on a market which was almost out of stock. On the other hand, the production of lavandin oil has considerably increased the distillers' already ample available stocks.

Some firms, taking into consideration this lavandin oil situation advised their clients not to hasten their purchases and to adopt an expectative policy pending a decrease in prices, which would very likely take place.

This decrease in prices did not materialize. On the contrary, an agreement has been concluded among all the Grasse buyers stipulating that the following limit prices, in accordance with the oil test, must not be exceeded:

Lavender oil . . . . .	Frs.: 7.500/8.000
Lavandin oil . . . . .	Frs.: 1.700/1.800

This decision has been taken in view of stopping any attempts by distillers to increase their prices. Those limit prices are respected by both sides in spite of resistance by producers, who are having difficulties in selling their oils at the limit prices.

A decrease in prices remains doubtful, at least for the weeks to come. If it takes place, it may be expected to occur during the 1956 season if stocks have not been sufficiently cleared. The new plantations, owing to present prices, are producing on a large scale, so that over-production at that time may be a reality.

## TRADE LITERATURE

Three booklets on perfume oils in various applications have been issued by Rhodia, Inc. Devoted to cream shampoos, aerosol products, and shaving creams, they detail and describe perfume materials suitable for these products.

Aromatic Chemicals is the title of a booklet from Polak & Schwarz. It describes various clove oil derivatives and their odor characteristics. A price list is included.

Many cosmetic and pharmaceutical formulas are included in a new issue of "Cosmetic and Drug Manual" issued by Glyco Products Co., Inc. Sections are devoted to emulsion techniques and cosmetic raw materials. Formulas for creams, lotions and shampoos as well as for other products are given.

The 1956 Edition of the Directory of the American Council of Independent Laboratories, Inc. provides details of facilities and services for 67 member laboratories, and in a special index lists over 400 categories of services with recommended laboratories.



## A BLOOD PRODUCT FOR AGING SKIN

Herbert C. Janowitz

IN the last few years either blood plasma or blood serum has been used in face masks and other facial preparations ostensibly with excellent results. If one accepts these results at face value, then the question comes up, namely, what is responsible for the beneficial effects?

There are indications that one of the amino acids in blood, namely, tryptophane is the base for something analogous to a true hormone, namely, 5-oxytryptamine.

There is some uncertainty about the biological significance of this compound. On the other hand, there is some knowledge about its metabolism in the living organism.

Histochemical examinations of vertebrates and non-vertebrates indicate that 5-OT, especially in the amphibious animals, 5-OT is present in the so-called skin-

poisons. The 5-OT originates through tryptophane oxydase which changes tryptophane into 5-OT. Tryptophane oxydase is present in significant quantities in the skin glands of the toad. In this connection I would like to draw attention to a cosmetic offered some years ago which contained an extract of the skin of various amphibians and was sold for its restorative properties on aging skin.

There is a school of thought which believes that the biological effect of 5-OT is without doubt upon the smooth muscular system outside the vascular system.

With this background it is suggested 5-OT is a product worthwhile investigating by cosmetic chemists who are interested in the restorative effects on aging skin. Perhaps at last it may be possible to banish wrinkles.

## RURAL FAMILIES ADOPT AEROSOLS

THE latest survey of the Kinetic Chemicals Division of E. I. Du Pont de Nemours & Co. on the use of aerosol packaged products among rural families discloses that rural families are more alert than has generally been supposed to adopt the use of new products and methods.

For example the following data taken from the survey show these comparisons of urban and rural families which used cosmetics in aerosols in 1955:

	Urban	Rural
Hair fixative .....	54	48
Shaving lather .....	28	25
Personal deodorant .....	15	18
Hair dressing .....	14	13
Shampoo .....	4	4
Sun tan lotion .....	5	3
Room deodorants .....	56	56

The convenience of the push button aerosol is the chief reason ascribed for the switch among all families. Thus the growing acceptance by urban and rural groups combined of aerosol room deodorant is shown by these figures:

Wick .....	58
Aerosol .....	56
Squeeze bottle .....	20

The various types of personal deodorants purchased last year and the per cent of families from urban and

rural groups stacked up as follows:

Cream .....	73
Squeeze bottle .....	55
Stick .....	45
Lotion .....	27
Aerosol .....	16
Powder .....	15
Pads .....	5

In hair fixatives the per cent of families buying each type show a marked preference for aerosols as follows:

Aerosol .....	52
Liquid .....	21
Cream .....	13
Squeeze bottle .....	4

The per cent of families buying hair dressings last year showed the following results:

Cream .....	24
Cream Oil .....	18
Liquid .....	18
Aerosol .....	14

The first aerosols, which contained insecticide, were introduced ten years ago. Today two out of every three families use aerosols for killing insects. They lead in this category by a wide margin, with mothballs, liquid spray guns, powder and brush-on liquids trailing far behind.

## AEROSOL NOTES

"All About Aerosols" is the subject of a well compiled illustrated technical and market data book issued by the Genetron Div., General Chemical Div. of the Allied Chemical & Dye Corp., 40 Rector St., New York, which should be on the desk of every manufacturer using aerosols for packaging. A copy may be had for the asking.

The new perfumed spray hair net offered by Lenthieric is an appealing glass aerosol package with its silk screen printed label and its attractive transparent cap over the valve.

A pearl spray designed to produce a mother of pearl finish on the surface of glass, cloth, metal, wood, leather,

ceramics or paper which is packed in aerosol container was discussed in the February issue of *D & O News*. The spray, it is stated, is transparent, permitting the under color to show through, and comes in a kit with suitable under colors, thinner and a small paint brush.

*DuPont Aerosol News*, which is published quarterly to aid in the expansion of the market for aerosol products won a warm reception with its first issue. Among the many interesting items published in it was the report that aerosol shaving creams are likely to become the nation's most popular shaving method. The aerosol container was preferred by only 2% in 1951, by 11% in 1953, and by 27% in 1955.

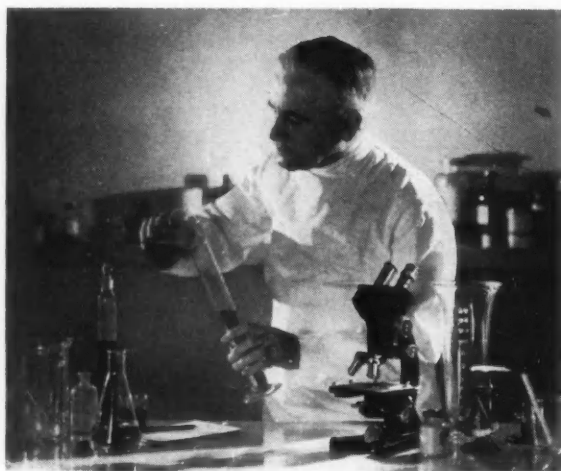


# Progress in Perfumery

## MATERIALS

### PART II

Paul Z. Bedoukian, Ph.D.  
Author of *Perfumery  
Synthetics and Isolates*



This is the second and concluding installment of Dr. Paul Z. Bedoukian's review of development in perfumery science during the year 1955.

#### Various Flower Oils

Experiments on the extraction of the perfume of azalea flowers (*Azalea pontica*) have shown that it is best to extract the oil at the beginning of the blossom formation. Two successive extractions with petroleum ether are recommended<sup>89a</sup>. Analysis of the perfume of pink plum blossoms has shown the presence of benzyl alcohol, isoeugenol, benzyl benzoate, benzaldehyde, benzoic acid and sesquiterpene bodies<sup>89b</sup>. The advantages of butane over petroleum ether in the extraction of floral perfumes are described in another publication<sup>89c</sup>.

The essential oil of the flowers of *Loisereuria procumbens* has been shown to consist of benzyl acetate, methyl anthranilate, linalool, indole, and eugenol<sup>89d</sup>. The odorous constituents of the nettle (*Urtica dioica*) were studied. It contained 15% alcohols and 38% ketonic materials of which 2-methyl-2-hepten-6-one was one<sup>89e</sup>.

A good review has appeared on the constituents of the essential oil of *Salvia sclarea*<sup>89f</sup>.

#### Some Important Essential Oils

Lavandin is a most important oil produced in France and it finds extensive application in soap perfumery. Several very interesting studies have been made concerning the production and composition of this oil. In a recent publication, one author gives not only the production, analysis and application of this oil but also lists the percentage occurrence of a very large number of its constituents<sup>90</sup>. The occurrence of 1-lavandulol and its d-alpha-methylbutyric ester in lavandin oil has been reported<sup>91</sup>. Various species of lavender, their individual constituents and the variable constants of lavender oil are discussed in another article<sup>92</sup>.

Although most of the vetivert oil of commerce is obtained from Haiti, this important oil is also cultivated in many tropical areas. The oil obtained from 47 samples of vetivert roots obtained from various parts of India has been subjected to examination<sup>93</sup>. The oil from West African roots is claimed to be different in odor and composition from the oil of roots from the Reunion Islands<sup>94</sup>. The results of a most interesting experiment

- Various flower oils ▶
- Important essential oils ▶
- New aromatic chemicals ▶
- Miscellaneous essential oils ▶
- Terpene hydrocarbons ▶
- Sesquiterpenes ▶
- Books ▶

involving molecular fractional distillation of vetiver oil appeared in a recent publication<sup>95</sup>.

Distillation of lemongrass in India, the properties of the oil and its behavior on aging, were enumerated in an Indian publication<sup>96</sup>. It is claimed that the citral content of the oil increases with the age of the plantation<sup>97</sup>. The history, production, analysis and uses of Formosan citronella oil were the subject of another article<sup>98</sup>.

Examination of North African bergamot oil indicated that it was different in quality from the Italian bergamot. One sample of Moroccan oil was considered of commercially acceptable quality<sup>99</sup>.

East Indian geranium oil has been subjected to a critical examination and a number of its constituents identified through derivatives<sup>100</sup>. Various species of wood occurring in Brazil yield rose-wood oil. The characteristics of this oil were recently reported<sup>101</sup>.

A general article describes improved methods of producing terpeneless essential oils<sup>102</sup>. A patent discloses the preparation of terpeneless oils using the chromatographic adsorption technique which is claimed to be particularly suitable for the preparation of terpeneless citrus oils<sup>103</sup>.

#### New Aromatics of Interest to the Industry

A Japanese publication lists the preparation of no less than 58 substituted butyrolactones, substituted in gamma, alpha-gamma, alpha-beta-gamma and gamma-gamma positions. In generalizing on the odor value of these derivatives, the author states that those possessing around ten carbon atoms have the most desirable odor characteristics. Those possessing less than ten carbon atoms had only weak odors and above fourteen carbon atoms the compounds became odorless<sup>102</sup>.

A new synthesis of cis alpha-beta unsaturated alcohols has been reported. Their preparation involves treatment of  $\text{ClCH}_2\text{CH}:\text{CHCH}_2\text{OH}$  with Grignard reagents<sup>103</sup>. Other authors have reported the preparation of gamma ethylenic and acetylenic alcohols through the intermediate pyran compound<sup>104</sup>.

A recent patent discloses the use of beta-(4-methyl-3-cyclohexen-1-yl) butyraldehyde in perfume compositions<sup>105</sup>. Another patent discloses that 2,4,6-triisopropylbenzyl alcohol possesses a musk-like smell<sup>106</sup>. The manufacture of nuclear substituted cinnamyl alcohols and their esters<sup>107</sup> and the condensation product of 1,2-dihydronaphthalene with formaldehyde<sup>108</sup> is given in two other patents.

Alkylation of indole in liquid ammonia is reported to give N-methyl indole along with homologs<sup>109, 110</sup>.

A new series of aromatic perfumery products were obtained by acylating cycloolefins and cyclo-ketones with salts of organic acids<sup>111</sup>.

#### Reports on Aromatic Chemicals

In studying the polymers of several aldehydes it was found that dodecanal gives the trimer which can be depolymerized by vacuum distillation in the presence of zinc chloride<sup>112</sup>. The preparation of the hemiacetal of dodecanal is reported and its properties studied<sup>113</sup>. Undecanal was prepared using the Sabatier and Mailhe process of passing vapors of undecylenic acid and formic acid through a tube at high temperatures<sup>114</sup>. The mechanism of aldehyde and primary alcohol oxidation with chromic acid mixture has been studied<sup>115</sup>. High yields of heptanal and undecenoic acid have been obtained by cracking relatively pure ricinoleic acid<sup>116</sup>.

The effect of a number of quinones on retarding the autoxidation of benzaldehydes was investigated<sup>117</sup>. A description of the processes used in the preparation of benzaldehyde by the oxidation of benzyl alcohol or

toluene, of benzyl benzoate from benzaldehyde, and the preparation of coumarin, appears in a Russian publication<sup>118</sup>. The manufacture and uses of benzoic acid and benzoates are discussed in another publication<sup>120</sup>.

Cis-benzylideneacetone has been prepared from 4-phenyl-3-buten-2-one by catalytic reduction. The same author prepared cis-cinnamic aldehyde by the catalytic reduction of propargyl aldehyde<sup>121, 122</sup>. Beta methyl cinnamic acid ester has been reduced to the alcohol and the latter in turn oxidized to beta-methyl cinnamic aldehyde<sup>123</sup>.

Limited quantities of phenyl ethyl alcohol are being manufactured from styrene oxide. A British patent describes the manufacture of this important alcohol from styrene halohydrin, styrene oxide being an intermediate in this process<sup>124</sup>. Benzyl chloride and ethylene oxide have yielded phenyl propyl alcohol through the Grignard reaction<sup>125</sup>. A laboratory procedure is described for the preparation of anisaldehyde from phenol<sup>126</sup>. Another publication gives a procedure for oxidizing isosafrole to heliotropin<sup>127</sup>. The production and uses of methyl anthranilate are given in a British publication<sup>128</sup>. It is reported that on heating gamma lactones with polyphosphoric acid for 1.5 to 2.5 hours the corresponding cyclopentenones are obtained in very high yields<sup>129</sup>. The manufacture of terpineol from French turpentine oil is described in a recent publication<sup>129a</sup>.

Vanillin was prepared with guaiacol as the starting material<sup>130</sup>. Another article described the manufacture of vanillin by the oxidative decomposition of wood powder<sup>131</sup>. A method was given for preparing vanillic acid by air oxidation using catalysts<sup>132</sup>. It is claimed that vanillin appearing on vanilla pods occurs in two crystalline modifications, one in the form of needles having a melting point of 77-79° C. and the other in tetragonal crystals having a melting point of 81-82° C. Solution of either form gave only the needle form upon evaporation of the solvent<sup>133</sup>. Syringic aldehyde has been prepared starting from vanillin<sup>134</sup>.

#### Miscellaneous Essential Oils

Research in the cultivation and distillation of new plants and the study of the constituents of old and new ones continue. We thus have reports from Australia, India, the Soviet Union, etc. Only by constant research directed toward the discovery of new sources and the improvement of yields and methods of production, can the essential oil industry hope to keep up in the competition with the synthetic aromatics industry.

The properties and composition of Australian tea-tree oil have been given<sup>135</sup>. The essential oil of *Eucalyptus maculata* has been shown to consist mostly of terpenes and about 27 per cent of cineole<sup>136</sup>. In an extensive review of the essential oil industry of Australia, the authors give the botany, technology and commerce of oils of eucalyptus, tea-tree, sandalwood, Huon pine, boronia flowers and others. Some unusual constituents of these oils are angustione, leptospermone, calythrone, eremophilone, cryptone, lanceol, and others, and the authors point out that at present there are no special uses for these interesting compounds<sup>137</sup>. Another review has been published describing the Australian essential oil industry<sup>138</sup>.

Examination of sandalwood oil of Kenya indicated the presence of some cadinene, 24% levorotatory sesquiterpene alcohols and 45% lanceol<sup>139</sup>. The composition of East African oil of *Brachylaena hutchinsii* was also investigated<sup>140</sup>.

The various essential oil bearing plants of Pakistan<sup>141</sup> and Kashmir<sup>142</sup> were described in two Asiatic publications. Other oils studied include *Ocimum basilicum* which contains 43-74% methyl cinnamate<sup>143</sup>, *Zataria*



Operator determining the infrared spectrum of a sample. Infrared analysis, used to identify oils, waxes, resins, wetting agents, solvents, etc., is gradually coming into general use in the industry.

multiflora which contains 69% phenols consisting mainly of carvacrol<sup>144</sup>, and *Pandanus odoratissimus* which is reported to contain 66% of the methyl ether of phenyl ethyl alcohol<sup>145</sup>. Good yields of high quality camphor have been obtained from *Ocimum kilimandscharicum guerke*<sup>145a</sup>. Continuation of previous studies on oil obtained from seaweeds indicated that it consists mostly of sesquiterpene hydrocarbons and some ketones<sup>146</sup>.

There are a number of reports on essential oils from the Soviet countries. The fir oil from Siberia contains 30-44% bornyl acetate and is used in the manufacture of optically active medicinal camphor<sup>147</sup>. The chemical composition of the essential oil of *Artemisia eucina*<sup>148</sup>, *Artemisia ferganensis*<sup>149</sup> and *Artemisia porrecta*<sup>150</sup> has been reported in other publications. Soviet produced oil of *Chenopodium ambrosioides* is said to contain 60 to 80% ascaridole<sup>151</sup> and is therefore considered very valuable for medicinal purposes. The yield and composition of lemon tree leaves from the Caucasus were given in another publication<sup>151a</sup>.

The chemical and physical properties of the oil obtained from plants cultivated in Poland have been published. These include the oils of peppermit, lavender, calamus and angelica<sup>152</sup>. A study has been made of the oil of *Artemisia annua* obtained from Yugoslavian plants<sup>153</sup>.

From Chinese sources come reports on the oil of *Citrus maxima*<sup>154</sup>, oil from the *ponderosa* variety of lemons<sup>155</sup> and oil of *Limnophila erecta*<sup>156</sup>.

The oil of *Tanacetum microphyllum* was shown to be rich in beta thujone<sup>157</sup>. The South American oil of *Thillandsia fragrans* contained 58-62% alcohols, having 52% citronellol, 20% geraniol, and the remainder, nerol<sup>158</sup>. The volatile oils from Argentine *Verbenacea* were described in a lengthy article<sup>158a</sup>.

The oil obtained from *Chamaecyparis lawsonia* stump heartwood was carefully analyzed and its constituents listed<sup>159</sup>. The essential oil of *Cyperus scarosius* R. has been shown to contain 40% tricyclic sesquiterpenes and 33% bicyclic sesquiterpene ketones<sup>159a</sup>.

Active research is continuing on the natural occurrence of acetylenic compounds. Recent work includes the isolation of an enediyne compound called *trans-lachnophyllum*<sup>159b</sup>; investigation of the occurrence of *trans-methyl 2-decene-4,6,8-triynoate*<sup>159c</sup>, and the synthesis of *n-deca-diynoate*<sup>159d</sup>. Other investigators have been studying the occurrence of various isothiocyanates in roots and seeds of *Brassicaceae*<sup>159e</sup>.

Studies on the flavor of soy sauce have led Japanese

workers into synthesizing a large number of sulfur compounds the odor and flavor of which have been noted. A number of sulfur containing ketones and methyl thio ethers were found to have flavors closely related to soy<sup>159f</sup>. The odor and flavor of some of the mercaptals and mercaptols synthesized were listed<sup>159g</sup>. The unusual odors of the following new synthetics are of particular interest to the perfumer and flavor chemist.

- 3-(2-furyl)-2-propenal—cinnamic aldehyde odor
- 1-(2-furyl)-3-methyl-1-penten-5-al—floral coumarin odor
- 1-(2-furyl)-3-methyl-1-penten-5-al—sweet soy odor
- 2-hexen-mercaptol—garlic like flavor
- Beta-hydroxy, phenyl ethyl mercaptol—hyacinth aroma
- MeSCH<sub>2</sub>CO<sub>2</sub>Et—cheese-like flavor

Three articles deserving mention deal with the biogenesis of essential oils in plants<sup>159h, 159i, 159k</sup>.

#### Oxidation of Essential Oils

Citrus and other oils, especially those containing terpenes, are prone to oxidative changes which cause undesirable results in the odor and flavor value of these oils. The influence of air (oxygen) and traces of metal catalysts has long been recognized, but as yet there appears to be no satisfactory and practical method of preventing the oxidative changes in essential oils.

Once peroxides are formed in the oil, decomposition sets in even though steps are taken to exclude air from the oil. Peroxide containing oils of bergamot, fennel, lavender, peppermint and turpentine, were placed in hermetically sealed containers and changes over a period of 500 days were noted. A lower peroxide content was found as the peroxide compound had apparently broken down and given rise to decomposition products<sup>160</sup>. The author states that oils with high peroxide content must be considered spoiled since they eventually end in developing off-odors and flavors. The influence of anti-oxidants such as dihydronorguaiaretic acid, butylhydroxyanisole, and propyl gallate has been observed. The addition of 0.01% of these anti-oxidants along with 0.05% citric acid to neutralize metallic catalysts is recommended for stabilizing essential oils<sup>161</sup>.

A critical study of the autoxidation of pinene revealed that no autoxidation occurs in the vapor phase. Light was shown to speed oxidation when no catalyst was present, but had little effect in the presence of heavy metal catalysts. The presence of metals such as cobalt causes the formation of peroxo bridges resulting in highly reactive peroxides. The oxidation of terpenes is concluded to be caused by free radical and chain formation. These

conclusions were based on the absorption of oxygen and the total amount of peroxide formed in pinene<sup>10,2</sup>.

### Terpene Hydrocarbons

The American Chemical Society has published a booklet on a system of nomenclature for terpene hydrocarbons, acyclics, monocyclics, and bicyclics<sup>163</sup>.

The changes in the optical activity of limonene on treatment with active clay have been studied<sup>164</sup>. In view of the availability of large quantities of limonene from the citrus oil industry, it would be of interest to find industrial uses for this low-priced terpene<sup>165</sup>. Nopyl acetate now being used in large quantities by the soap industry as an aromatic chemical is manufactured by the condensation of formaldehyde with pinene. The same reaction has been applied to limonene and an alcohol obtained<sup>166, 167</sup>. This may be hydrogenated to the saturated alcohol. It should be worth while to investigate the odor of this alcohol. The action of lead tetraacetate in glacial acetic acid led to the formation of diol acetates<sup>168</sup>.

Similar products were obtained with pinene<sup>169</sup> but in addition the reaction product contained myrtenyl acetate and perilla acetate<sup>170</sup>. Better yields of perilla alcohol from pinene can be had by using selenium oxide in the oxidation reaction<sup>171</sup>.

Pinene was found to react with carbon tetrachloride to yield chlorinated hydrocarbons<sup>172</sup>. These compounds are reported to possess insecticidal properties<sup>173</sup>.

The action of peroxybenzoic acid on alloocimene resulted in the formation of the 6, 7-diol benzoate<sup>174</sup>, the benzoic group being attached to the most highly substituted carbonatom.

### Oxygenated Terpenes

A number of reports have appeared describing methods of preparing synthetic terpenes. Thus, isovaleraldehyde condenses with ease with bromocrotonic esters to give compounds having the polyisoprene skeleton<sup>175</sup>.

Another method of synthesizing such compounds is to treat 4-methyl-3, 4-dihydro-2H-pyran with chlorine and then react it with isobutyl Grignard. On breaking the pyran ring, good yields of an isomer of citronellol are obtained.<sup>176</sup> Another publication reports the synthesis of dihydrolinalool starting with levulinic acid.<sup>177</sup>

The cyclization of cis and trans geranyl compounds has been studied<sup>175</sup>. A study has also been made of allyl cyclogeraniol<sup>176</sup>. The same authors investigated the cyclization of alpha-methyl geranic acid<sup>180</sup>. The cyclization of active linalool has always presented an interesting problem. An electronic mechanism served to explain the formation of (+)-alpha-terpineol from (-)-linalool<sup>181</sup>.

Coriander oil obtained in Poland was used for the manufacture of citral and geraniol. The optimum conditions of oxidation of linalool to citral were determined. Conversion of linalool to geraniol was also studied<sup>182</sup>.

Beta cyclocitral and a number of its derivatives have been prepared and their constants reported<sup>153</sup>. Another paper gives the synthesis of beta-cyperone starting with carvenone<sup>154</sup>. In order to establish the seven-membered ring structure of eucarvone, the tetrahydro derivative has been synthesized and shown to be identical with the hydrogenated natural eucarvone<sup>155</sup>. The reaction of carvone and dihydrocarvone with methanol in the presence of sulfuric acid was reinvestigated and the nature of the products obtained established<sup>156</sup>.

An American patent discloses the manufacture of synthetic trans-2, 6-dimethyl-2, 6-octadien-8-ol<sup>187</sup>.

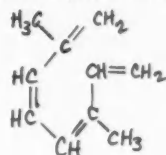
A very startling and unexpected reaction has been reported by a Soviet source. On letting 180 ml. of ace-

tone stand for seven days over 70 grams of potassium hydroxide, a product was obtained containing such substances as mesityl oxide, cyclohexanone, alpha-thujone, d-pulegone, and probably isopulegone<sup>188</sup>. Compounds containing isoprene structures were prepared by reacting crotonaldehyde with formaldehyde<sup>189a</sup>.

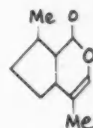
A study of the isomerization of isoverbanone<sup>189</sup> and d-fenchone semicarbazones<sup>190</sup> revealed that of the two forms, only one is stable, and this fact must be taken into consideration when trying to prepare the unstable form through the semicarbazone.

The structure of the highly unsaturated cosmene has been confirmed by total synthesis<sup>191</sup>.

The unusual structure of nepetalactone obtained from oil of catnip has been proven by synthesis<sup>192</sup>.



## COSMENE



NEPETALACTONE

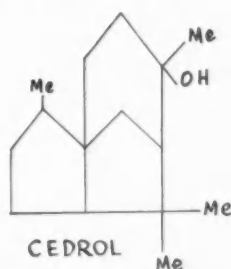
Examination of juniperol from *Juniperus communis* has shown it to be identical with macrocarpol<sup>192a</sup>.

A very interesting article gives the differences in properties of alpha and beta terpenes<sup>192b</sup>.

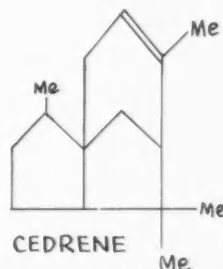
### Sesquiterpenes

Having cleared up the structure of caryophyllene, further studies carried out established that caryophyllene has the trans configuration and iso-caryophyllene, the cis configuration<sup>193</sup>. On the basis of some studies on degradation products of the isomers of caryophyllenes, structures have been proposed for the beta and gamma isomers<sup>194</sup>. Beta caryophyllene alcohol has been prepared from the hydrocarbon using the peroxide hydroxylation reaction<sup>195</sup>. A Japanese review deals with the chemical constitution of this important sesquiterpene hydrocarbon<sup>196</sup>.

Investigations are being continued on the degradation products of cedrene<sup>197</sup>. Revaluation of previously observed data have indicated the following structures for cedrol and cedrene<sup>198, 199</sup>.



CEDROL



CEDRENE

Another sesquiterpene which has attracted a great deal of attention is humulane. The total synthesis of humulane has established the eleven-membered ring structure of humulene<sup>200</sup>. Alternative isomeric structures have been proposed by others<sup>201</sup>.

Following their researches on substituted cadalenes, Indian workers reported the synthesis of 2,2-dimethylcadalene and 3,8-dimethylcadalene<sup>202</sup>. The steric configuration of eudesmol has been established<sup>203</sup>. Sesquiterpenes of cadinane type were investigated<sup>203a, 203b</sup>.

Other studies on sesquiterpenes have established the absolute configuration of zingiberene<sup>204</sup>, metrosiderene<sup>205</sup>, and a new sesquiterpene from *Piper cubeba*<sup>206</sup>.



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The occurrence of a new sesquiterpene alcohol named animol, having two double bonds and one ring, has been reported in oil of *Myoporum crassifolium*<sup>207</sup>. The occurrence of 3-oxo-tetrahydralantolactone has been noted in the oil of *Inula helenium*<sup>208</sup>.

#### Books and General Reviews

A number of publications and books of general interest to the industry appeared during the past year.

The American Chemical Society has published a booklet on the nomenclature of terpene hydrocarbons<sup>209</sup>.

Among Russian publications is a Handbook for Laboratory Workers in the Essential Oil Industry<sup>210</sup>. A committee of recognized French chemists published a book on the analytical constants of a large number of essential oils<sup>211</sup>. A book on essential oils<sup>212</sup> and a short treatise on linalool and its acetate<sup>213</sup> appeared in Spain recently. Of interest also is the companion volume to the Kodex of Perfumery Aromatics, dealing this time with essential oils<sup>214</sup>.

The fourth volume of Cerbelaud's Treatise of Cosmology came out in 1955<sup>215</sup>. Other publications include the second edition of Sagarin's The Science and Art of Perfumery<sup>216</sup> and an American issue of Jellinek's The Practice of Modern Perfumery<sup>217</sup>.

An excellent report on progress in the chemistry and the industry of synthetic perfumes appeared recently<sup>218</sup>.

This is the author's twelfth annual review of progress in perfumery materials<sup>219</sup>.

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**The Hormonal Action of the Placenta.** E. Philipp (Univ. Kiel, Ger.). *Deut. med. Wochschr.* 80, 243-5 (1955).—A review with 26 references. Thru *C.A.* 49, 7092d.

**Cutaneous Absorption of Pyridoxine.** Gilberto Guimaraes Villela (Inst. Oswaldo Cruz, Rio de Janeiro, Brazil). *Rev. brasil. biol.* 14, 443-7 (1954).—A cold-cream-type ointment contg. 0.50% of pyridoxine-HCl was rubbed into the skin of arms of healthy human subjects. From 22 to 41% of the vitamin was absorbed through the skin. Most of it was excreted as 4-pyridoxic acid in the urine in the following 22 hrs. Thru *C. A.* 5668a 49.

**Effect of a Stannous Fluoride-Containing Dentrifrice on Caries Reduction in Children.** Joseph C. Muhler, Arthur W. Radike, Wm. H. Nebergall, and Henry G. Day (Indiana Univ., Bloomington). *J. Dental Research* 33, 606-12 (1954).—The dentrifice, contg. 1.000 p.p.m. F and 3.200 p.p.m. Sn, produced a pronounced reduction in incidence of dental caries in 6-15 year old children when used in an unsupervised manner for 6 months, the greatest protection being in the older age groups. Protection was apparently complete against interproximal lesions; lesions were reduced by 70% on buccal-lingual surfaces, and 26% on occlusal surfaces. 26 references. Thru *C.A.* 49, 5690d.

**Distillation of Aromatic Plants on Mauritius Island.** A. Mariotti. *Rev. agr. ile Maurice* 33, 124-31 (1954).—Vetyver (I) and patchouli (II) found on Mauritius were distd. and compared with similarly treated standards from Reunion Island. Yields of oil of I were low and of ordinary quality. Yields of oil of II were over 3%, comparable to that of producer countries. The quality was fair despite poor harvesting. Thru *C. A.* 49, 5782e.

**Soluble Coffee With Fortified Aroma.** Pierre Lemonnier. U.S. 2,680,687, June 8, 1954.—Roasted and ground coffee contg. approx. 2% moisture is subjected to dry distn. at 50-70° and 5 mm. for < 3 hrs. The distillate is condensed at -180° and then incorporated into a sol. coffee of about 2% moisture; the combined moisture con-

tent of the powder does not exceed 4.5%. Thru *C. A.* 48, 10258h.

**Paper Chromatographic Separation of Coumarin and Its Derivatives.** S. Berlingozzi and L. Fabbrini (Univ. Florence). *Sperimentale, Sez. chim. biol.* 5, 1-5 (1954).—The following substances were sep'd. chromatographically: coumarin, umbelliferone, 4-methylumbelliferone, erniarin (7-methoxycoumarin), diphenylumbelliferone, 7-methylcoumarin, esculetin, and daphnetin. The solvent consisted of H<sub>2</sub>O 86, butylene glycol 6, and AcOH 10 parts. The substances were applied in 0.05% soln. They were detected with Wood's light. Only coumarin and 7-methylcoumarin required spraying with 1% Na<sub>2</sub>CO<sub>3</sub> soln. since all other compds. gave immediately fluorescence. Thru *C. A.* 49, 5216i

**Emulsion of Essential Oil of Western Sagebrush.** Albert Sherman. *U. S. 2,697,060*, Dec. 14, 1954. Colloidal compns. claimed to have topical medicinal value, especially for gingivitis, were prepd. by emulsifying the essential oil from the leaves and twigs of *Artemisia tridentata* obtained by steam distn. After removal of highly volatile and irritant artemisal, the oil was emulsified by using an homogenizer or by using emulsifying agents of either ionic or colloid type or their mixt. Formulas and procedures for mouthwashes, toothpastes, and cosmetic creams are given. Thru *C. A.* 49, 5786c.

**Determination of Ethanol by Winkler's Chloroform Test.** Benno Grote (Einhorn-Apotheke, Delmenhorst, Ger.). *Deut. Apoth.-Ztg.* 93, 788-9 (1953); cf. Winkler. *C.A.* 26, 253.—The method can be reversed, i.e. the tincture can be titrated with CHCl<sub>3</sub>. Thru *C. A.* 49, 4239g

**Identification of p-Hydroxybenzoic Acid and Its Esters by Paper Chromatography.** Giuseppe Safina and Clara Petronici (Univ. Palermo, Sicily). *Conserv. e deriv. agrumari (Palermo)* 3, No. 12, 172-4 (1954).—This reports a study for the enforcement of food ordinances. Acidify a 25 to 50-g. sample with a few drops dil. H<sub>2</sub>SO<sub>4</sub> or HCl, add 2-3 ml. of a soln. contg. 15% K<sub>4</sub>Fe(CN)<sub>6</sub> and 30% ZnSO<sub>4</sub>, reduce to

manageable consistency by heating on a water bath 15 min., cool, and filter through cloth. Ext. 4 times with 15-25-ml. portions of 1 Et<sub>2</sub>O/1 petr. ether, combine the exts., dry with anhyd. Na<sub>2</sub>SO<sub>4</sub>, and evap. to dryness. Take up in 75% MeOH for chromatography, following established procedures. The best solvent was 20 benzene: 100 petr. ether (b. 40 to 70°): 10 parts MeOH. The temp. should be 25°. Millon's reagent was used to make the spots visible. Thru *C. A.* 49, 6782i.

**Metabentonite of Slovak Origin and Its Pharmaceutic Applications.** L. Zathurecky and K. Simko (Univ. Bratislava, Czech.). *Farmacia* 21, 127-33 (1952).—Metabentonite (I) of Slovak origin (similar to subbentonite) has a high SiO<sub>2</sub>:Al<sub>2</sub>O<sub>3</sub> ratio (12:1), causing a lower hydration capacity. I forms a suitable gel, has 2 times bigger adsorbent power than Bolus alba, but has only about a half of the swelling capacity of the American bentonites. I is suitable for the prepn. of ointments and suspensions and is a good stabilizer of emulsions. Thru *C. A.* 49, 5777c

**Aeth in Topical Applications.** *J. Am. Pharm. Assn.*, 16, 5, 272 (1955).—Can you supply any information on the use of ACTH for topical application?—L.L.R. Oregon. No reported work with ACTH in the form of topical applications is now available according to Dr. E. Anderson, chief of the National Institutes of Health, Division of Endocrinology. Dr. Anderson states that the action of ACTH is to stimulate the adrenal gland to secrete cortisone; the amount of ACTH absorbed through the skin would not cause this action to an appreciable extent. It is for this reason that cortisone or hydrocortisone in relatively high concentrations are used for their effect by local application.

**Bull. Central Food Technol. Research Inst. (Mysore)** 3, 221-4 (1954). R. presents miscibility curves plotted from temperatures of complete miscibility and cloud temperatures, obtained on heating and cooling, resp., of 30-g. portions of refined cottonseed, pressed peanut, and cold-pressed mustard oils to which increments of alcohol were successively added. Thru *J. Am. Oil Chemists' Soc.*, 32, 373 (1955).

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**Acid-Reducing Effect of Antienzymes in the Mouth.** Finn Brudevold, Marguerite F. Little and Janet Rowley (Eastman Dental Dispensary, Rochester, N.Y.). *J. Am. Dental Assoc.* 50, 18-22(1955).—Na lauroylsarcoside and Na dodecyl sulfate exerted a similar acid-reducing effect. After 2 hrs. this effect was confined to accessible surfaces and saliva, and was not found in plaque material in interdental spaces where the lesions of dental caries are most apt to occur. *Thru C. A.* 49, 4167h

**Selecting Polyethylene Glycol Esters.** Jos. L. Kanig, Leonard Chavkin, and Leon Lerea (Columbia Univ.). *Drug & Cosmetic Ind.* 75, 180-1, 253-6(1954).—A hydrophilic series based upon the surface tension of 0.5% aq. solns. has been developed which could be the initial effort toward systematization of application usefulness of these esters; the validation of the series has been accomplished based upon emulsifying efficiency with a 50% mineral oil-H<sub>2</sub>O emulsion. The extension of the series to all other nonionic agents is recommended. *Thru C. A.* 49, 4229f

**Hexachlorophene Soap and Quaternary Amines in the Disinfection of the Skin.** A. Paoletti (Univ. Naples). *Boll. soc. ital. biol. sper.* 28, 1602-4(1952).—Parts of human skin washed for 1-10 min. with soap contg. 2% hexachlorophene had 5-30% less bacteria than control parts washed with ordinary soap. Washing with 1% of Steramine (alkyldimethylbenzylammonium chloride), Bradolol (2-phenoxyethyl dimethyldodecylammonium bromide), or Cetavlon (hexadecyltrimethylammonium bromide) under the same conditions gave 90-100% disinfection. *Thru C. A.* 49, 4231f

**Mechanism of Deterioration.** Feuill & Skellon (J. Chem. Soc. 1954, 3414) identified 9,10-dihydroxystearic acids, unsaturated keto esters, and the scission fragments nonanoic, decanoic, suberic and azelic acids among the products of catalytic oxidation of n-propyl oleate at 55, 85, and 120°. At the higher temperatures the keto esters dimerized and form oils and resins that still retain their ketonic character. These and other observations were compatible with the mechanism involving direct attack on ethenoid linkages by free hydroxyl radicals generated by thermal homolytic fission of initially formed hydroperoxides. The formation of ketol derivatives and formic acid on oxidation of elaidic acid was confirmed by King (Ibid. 2114). From low temperature photochemical oxidation tests of methyl oleate, Khan et al. (J. Am. Oil Chemists' Soc. 31, 460) confirmed that the principal products are trans

hydroperoxides and also found that the conversion from cis to trans double bonds occurred at the same time as hydroperoxide formation. Their tests on linoleate showed that cis, trans conjugated hydroperoxides form with visible light and that copper catalyzed oxidation induced trans, trans conjugated hyperperoxide formation. Photochlorophyll oxidations of linoleate lead to the formation of some unconjugated hydroperoxides, some of which contain trans double bonds. Ricciuti et al. (Ibid. 456) used polarographic methods to confirm that hydroperoxides form an oxidation of linoleate. In later stages of oxidation they found that half the oxygen can be accounted for as free acid and half other than ester, hydroperoxide or free acid. Spectral and polarographic analyses of products of lipoxidase catalyzed oxidation of linoleate showed that cis, trans diene-conjugated isomers form, that polymers appear to be formed by oxidative reaction, that the enzyme is involved in the formulation of each peroxide molecule, and that hydroperoxides are formed initially (Privett—Ann. Rept. Hormel Inst. 1953-4, 7). A trans, trans conjugation observed in the work was believed to occur as secondary reactions in the process of recovery and isolation. The lipoxidase showed no activity on cis-9, trans-12-linoleate. *Thru J. Am. Oil Chemists' Soc.* 32, 5, 269(1955).

**Deodorants and Antiperspirants. Determination of Boric Acid and Phenol-sulfonic Acid.** John E. Clements Food & Drug Admin., Washington, D.C.). J. Assoc. Offic. Agr. Chemists 38, 351-3 (1955).—The ion-exchange method for the isolation and detn. of H<sub>2</sub>BO<sub>3</sub> (I) (C.A. 48, 10301b) and the spectrophotometric method for the detn. of phenol-sulfonates (II) (C.A. 48, 12377b) were studied. On sep. synthetic samples prepd. to contain ingredients likely to be found in com. preps., 4 collaborators obtained recoveries of 93.9-101.3, av. 99.1%, I, and 98.7-101.3, av. 99.9%, II. *Thru C.A.* 49, 10487g.

**pH in the Paint and Color Industries.** M. Deribere. *Paint Manuf.* 25, 101-5 (1955).—The importance of pH as a factor in manufg. processes, production deterioration, and exptl. work is explained. The stability and pigment compatibility are affected by changes in pH. In the manuf. of pigments, the pH can govern the fineness, covering power, shade, or color of the product. The concept of pH<sub>p</sub> is explained, also the application to the control of suspension of alumina washed with acids. pH<sub>p</sub> is calcd. from the formula: pH<sub>p</sub>=pH-1/2 log (55.5/H<sub>2</sub>O). The pH<sub>p</sub> of a liquid approaches more and more closely to its pH as its water content increases. *Thru C.A.* 49, 7260f

**Solutions for Permanent Waving of Hair.** Eau de Cologne-fabrick J. C. Boldoot N.V. *Dutch* 75,921, Sept. 15, 1954. For permanent waving of the hair at 18-37° liquids are used contg. (1) reducing agents, such as sulfites-bisulfites, (2) an agent which penetrates the scaly cuticula and limits the swelling of the secondary layer (cortex) of the hair, and (3) preferably a swelling agent, such as urea or a sulfocyanide. Penetrating agents are water-sol. ethers, esters, or ether-esters of aliphatic glycols, or glycerols, such as ethylene glycol or diethylene glycol monoethyl or monopropyl ether or monoethyl ether acetate. The pH must be 6-7. The concn. of the sulfites varies from 20-30%, of the ethers or esters from 10 to 30%, and of the urea from 3 to 5%. The duration of the treatment is 20-30 min. *Thru C. A.* 49, 7200i

**Essential Oil-Bearing Exotics Suitable for Pakistan.** Abdul Hamid Khan. *Agr. Pakistan* 3, 48-53(1952).—The chem. constituents and uses of the essential oils of 36 species in 22 plant families are discussed. *Thru C. A.* 49, 1283g

**Human Hair Fat.** Sheng-Lieh Liu (Natl. Taiwan Univ., Formosa). J. Chinese Chem. Soc. (Taiwan) Ser. II, 1, 71-89 (1954) (in English)—Hair from boys (Taipei and Tokyo), girls (Taipei), men (Tokyo), and women (Tokyo) gave, on extg. with ET<sub>2</sub>O or C<sub>6</sub>H<sub>6</sub>, hair fat in 1.0-2.3, 3.3, 1.2-2.4, and 2.9-3.0% yield, resp. The hair fat from men contained cholesterol, 6-hexadecenoic (I), myristic (II), palmitic (III), stearic (IV), oleic (V), ricinoleic, and jimmoarachidic (VI) acids. VI is a new acid, C<sub>20</sub>H<sub>40</sub>O<sub>2</sub>, m. 69-70° (from Me<sub>2</sub>CO), p-chlorophenacyl ester, m. 82-4°. Ricinoleic acid must be contamination from pomade. The hair fat from women contained I, II, III, IV, V, and esters of low mol. acids, b<sub>p</sub> 71-115°, (d)<sub>4</sub>+5.7°. *Thru C.A.* 49, 7086i

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## SOAP SECTION

**A** MOBILE laboratory with an exterior like a transcontinental bus and an interior like the laundry of a 1956 dream house was introduced February 24 by the Colgate-Palmolive Co. This unique laboratory on wheels, the Launder-Lab cruiser can take the most advanced techniques of scientific analysis to the backyard of almost any housewife in the United States.

On its first trip the Launder-Lab cruiser will study how effective soaps and detergents are at laundering clothes and washing dishes with the water supplies of southern cities. The laboratory and its staff of trained researchers left the Metropolitan New York area early in March for Roanoke, Va.

On location the cruiser will be used for a wide variety of tests on the performance of laundry and dishwashing products. Local water supplies and soil types will be used in experiments which duplicate conditions in local homes. Up until now research scientists have been forced to attempt to reproduce water hardness and soil type by chemical or artificial means. With the cruiser they can conduct experiments in any geographical area.

The Launder-Lab cruiser adds on-the-spot studies of soap and detergent effectiveness to an already extensive program of evaluating products by rigorous scientific testing. This new mobile unit broadens the scope of three important methods for rating how well products

work—practical laundry tests, standard soil tests, and physical-chemical measurements.

### Laboratory Work

Practical laundry tests will form a major part of the cruiser's activities. In these tests, home economists and technicians launder clothes by the same method as the average housewife. But unlike the housewife they control the temperature



of the water, the amount of detergent used, and the number of rinses. They appraise results as the housewife does, by visual judgments of whiteness and brightness. They also measure whiteness and brightness scientifically by color difference meters and other sensitive instruments.

For practical laundry tests the cruiser includes 2 conventional washing machines, 2 automatic

## MOBILE LAUNDRY UNIT

A LABORATORY  
ON WHEELS  
STUDIES THE  
EFFECTIVENESS  
OF SOAPS AND  
DETERGENTS  
IN ANY AREA



The interior of the laboratory on wheels provides 1956 home laundry equipment and facilities for a wide range of scientific experiments. It uses the same water supplies as the local housewife, making it possible to evaluate soaps and detergents under home conditions.



## SOAP SECTION

washing machines, and 2 electric dryers—all 1956 models. These can be replaced to meet research needs.

For hand laundry tests and dishwashing experiments there are stainless steel sinks. Also aboard are instruments for testing water characteristics, and for measuring soil removal.

Like most laboratories, the Launder-Lab cruiser is not open to the public while experiments are in progress. Generally visiting hours are from 3 to 4 p.m. A few local housewives are invited to visit the cruiser at other hours. These are

women who have volunteered to lend their family laundry bundles for use in detergency studies.

### Engineering Features

A first in the industry, the Launder-Lab cruiser was originated by the Colgate-Palmolive Research & Development Department and designed by its Mechanical Engineering division. One of the engineering highlights is the heating and air-conditioning system, large enough for a five room house. Power for heating and cooling air as well as

for the fluorescent lighting system, for laundry equipment, for water heating, etc. is supplied by a generator trailer.

The unit carries a supply of 225 gallons of hot water. Tanks for fresh and waste water are built under the floor of the vehicle.

Because of power steering and air brakes, the cruiser is relatively easy to drive. The vehicle is 35 x 8 feet; 8½ feet high; and weighs 28,000 pounds.

Personnel assigned to the Launder-Lab cruiser travel in an accompanying station wagon.



Housewives who brought their family laundry bundles for use in practical laundry tests watch technicians conduct an experiment aboard the cruiser.



Technicians divide a bundle of laundry from a typical family into two loads. Comparisons give a scientific basis for conclusions.



The researchers finish a practical laundry test, making use of the modern equipment.

### SYNTHETIC DETERGENTS LEAD IN SOAP SALES

ACCORDING to the Sales Census for 1955 conducted by the Assn. of American Soap & Glycerine Producers, Inc., eighty manufacturers, representing a high percentage of the industry volume, reported total tonnage sales of soaps and synthetic detergents in 1955 as 3,667,942,000 pounds, a 4.6% increase over 1954. Dollar sales in 1955 were \$860,984,000 as against \$793,396,000 in 1954. Sales of synthetic detergents, now 63.2% of the market, reached a

new high. Tonnage sales were 2,317,478,000 pounds, up 12%; and dollar sales were \$540,916,000, up 13.8% over the sum of \$475,442,000 reported in 1954.

Liquid detergents gained in popularity, as indicated by the 28.8% increase in sales. Soap sales for 1955 were reported at 1,350,464,000 pounds, a 6.4% decline from the previous year. Dollarwise, soap sales totaled \$320,068,000.



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# I-Quiz

This Month's Quiz Master



William R. Markland

Chief Chemist, John H. Breck, Inc.

**Question I.** *Do you think that a soap-base shampoo can do as good a job of washing the hair in all kinds of water hardness as a synthetic detergent shampoo?*

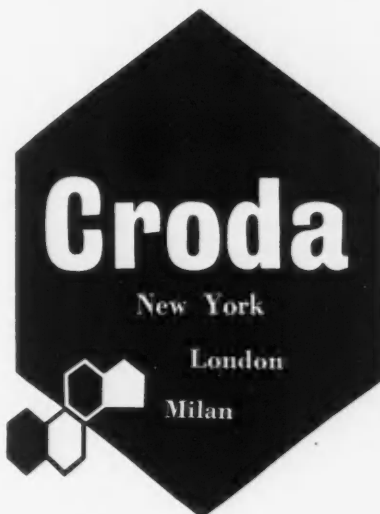
**Answer.** Yes. Hair is not difficult to clean and does not require very severe or stringent conditions of detergency. A soap-base shampoo, however, must be properly formulated with particular regard to efficient dispersion of any lime-soaps formed in the shampoo rinse stage to prevent their disposition on the hair. Lime soaps deposited on the hair will, of course, cause dullness and lacklustre. Our experience has shown that well formulated soap-base shampoos will give excellent results even in water above 500 ppm hardness as  $\text{CaCO}_3$ .

\* \* \*

**Question II.** *Based upon your studies, do you find soap-based shampoos as defatting as synthetic detergent shampoos?*

**Answer.** Much remains to be learned about the so-called drying and defatting action of cleansing agents on the skin and hair. For example, is it a problem of simple oil removal or perhaps a more complex problem of chemical action and/or absorption of the agent on skin and hair? I think recent papers tend toward the latter possibility. Our studies have been conducted largely on a practical basis and have included half-head shampoos given weekly for extended periods, examination of hairdressers' hands following extensive use of products, as well as laboratory hair and wool washing and solvent extraction. Such studies have led us to conclude that soap-based shampoos give less defatting effect than synthetic detergent shampoos.

## Croda News



### POLAWAX

*Have you tried Polawax for your Deodorant Creams?*

Polawax is eminently suitable for Deodorant Cream formulation due to its compatibility with strong electrolytes.

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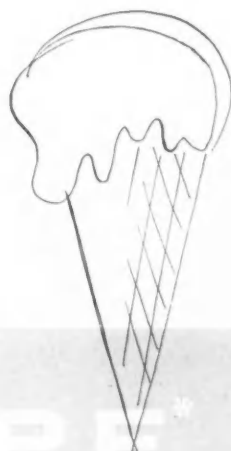
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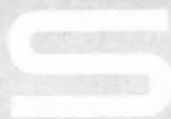
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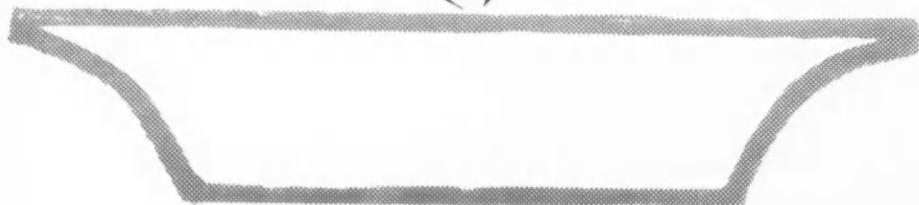


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## Broth-LIKE Flavor



**3—Methylmercaptopropionaldehyde has a broth-like flavor which may find application as a new flavoring material**



Morris B. Jacobs, Ph.D.

FROM time to time this section of the AMERICAN PERFUMER AND AROMATICS has noted that certain chemicals which cause defects in the flavor of foods like milk might possibly be useful as flavoring ingredients for other products. For instance, the paper of Mark Keeney<sup>1</sup> on studies on the chemistry of milk fat oxidation which was presented before the Division of Agricultural and Food Chemistry of the American Chemical Society at its meeting in Minneapolis in September, 1955 disclosed that the compound responsible for coconut-like flavor defect of milk, particularly powdered milk, was delta-decalactone. The coconut-like flavor of related compounds has been noted in the past<sup>2</sup>.

At this same meeting Stuart Patton<sup>3</sup> of the Department of Dairy Science, the Pennsylvania State University, reported in a paper on the chemical aspects of

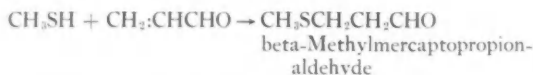
flavor problems with milk and its products that several 2-enals caused oxidized flavor, 3-methylbutanal caused malty flavors, 3-methylthiolpropanal caused sunlight flavors and delta-decalactone caused flavor deterioration.

In some continuation of this work Patton in a communication to *Food Technology*<sup>4</sup> reported again on the sunlight flavor defect of milk<sup>5</sup> but pointed out this time that the compound 3-methylmercaptopropionaldehyde which he had termed 3-methylthiopropional in a previous paper had impressive broth-like properties and suggested the it "perhaps may be of importance beyond the field of milk products."

Patton synthesized 3-methylmercaptopropionaldehyde, which he termed methional in his communication to *Food Technology*, by the method of Pierson, Giella, and Tishler<sup>6</sup> in which methyl mercaptan is added to acrolein

## FLAVOR SECTION

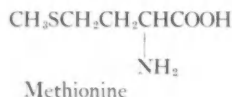
at atmospheric pressure using a small amount of copper methyl mercaptide as the catalyst:



In the Pierson *et al.* method, 1 mole, that is, 48 grams of gaseous methyl mercaptan was bubbled under the surface of a cooled mixture of 56 grams (1 mole) of acrolein and 0.5 gram of cupric acetate for thirty minutes while stirring and while keeping the temperature of the reaction mixture at 35-50° C. The mixture was stirred for an hour and then was distilled under reduced pressure to give the beta-methylmercaptopropionaldehyde. The yield was 87 grams or 84 per cent. Patton obtained 74 per cent yield using this method.

Pierson, Giella, and Tishler found that beta-methylmercaptopropionaldehyde boiled under reduced pressure (11 mm.) at 52 to 54 deg. C., had a specific gravity at 20 deg. C. of 1.036, and had a refractive index of 1.4850 at 20 deg. C. Patton found his product to boil (at 23 mm.) at 71 to 73 deg. C., to have a density of 1.040 at 20 deg. referred to water at 4 deg. C., and to have a refractive index of 1.484 at 20 deg. C.

Kaneko and Mii<sup>7</sup> and Rothstein<sup>8</sup> synthesized 3-methylmercaptopropionaldehyde by different methods. Barger and Coyne<sup>9</sup> and Catch *et al.*<sup>10</sup> as well as Pierson were interested in the preparation of this compound as a step in the development of a practical synthesis of the necessary amino acid, methionine



Patton pointed out that it was possible that 3-methylmercaptopropionaldehyde was formed in foodstuffs by a Strecker degradation<sup>11</sup>, that is by a reaction between alpha-amino acids, of which group methionine is a member, with carbonyl compounds to yield aldehydes and ketones which contain one less carbon atom in the molecule. Schönberg and Moubasher<sup>12</sup> have reviewed the literature on the Strecker degradation.

Since methionine is widely distributed in foods by virtue of being one of the amino acids which is a constituent of many proteins, it is likely as Patton suggests that the resultant 3-methylmercaptopropionaldehyde resulting from the degradative process might very well account for the flavor and aroma of cooked meats, boiled vegetables, and soups. It is much more likely that it is one of the components of such flavors and aromas rather than being mainly responsible for them.

Another example cited by Patton is the odor of meat infusion broth media and peptone media used as culture media in bacteriology for these too have the odor in question. For many years the meaty aroma and flavor were ascribed to monosodium glutamate, NaOOCCH<sub>2</sub>CH(NH<sub>2</sub>)COOH which was originally sold as a white crystalline powder with a peptone-like odor, a salty taste, and a strong meat-like odor.<sup>13</sup> With greater purification of monosodium glutamate, the strong meat-like flavor was apparently lost although the ability of the purified material to enhance the flavor of foods to which it was added was not impaired.

Patton found that as little as 0.05 part per million

of 3-methylmercaptopropionaldehyde in milk was detectable and that the addition of 4 milligrams to a quart of milk had the effect of greatly intensifying the "sunlight flavor" which is produced when milk is exposed to sunlight.

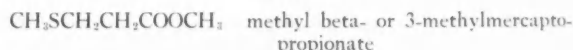
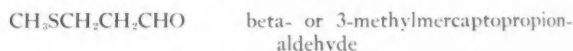
The pure compound has an intense disagreeable odor which quickly permeated the room in which it was prepared.

Patton was able to prepare the 2,4-dinitrophenylhydrazone of 3-methylmercaptopropionaldehyde. This derivative melts at 120.5 deg. C. and he was able to regenerate the mercaptoaldehyde by warming the dinitrophenylhydrazone derivative with levulinic acid.

Using the paper chromatographic procedure of Heulin<sup>14</sup> for separating 2,4-dinitrophenylhydrazones, Patton found that the 3-methylmercaptopropionaldehyde derivative moves faster than the formaldehyde derivative and slower than the acetaldehyde derivative.

It is of great interest to note that Haagen-Smit and co-workers<sup>15, 16</sup> reported in 1945 the isolation of a compound present only in minute traces from pineapple juice which is closely related to 3-methylmercaptopropionaldehyde. The compound isolated by Haagen-Smit was the ethyl ester of beta- or 3-methylmercaptopropionic acid. These investigators found only 0.25 gram of sulfur in 995 kilograms of the winter fruit and 0.1125 gram in 740 kilograms of the summer fruit. Actually they were unable to isolate the sulfur-bearing compound, itself, in a pure state by distillation so they oxidized it and subsequently synthesized a compound which had the same properties as that found in the fruit. The concentrated material had an intense disagreeable odor but upon great dilution had a strong resemblance to pineapple flavor.

It can be seen from the formulas:



(or beta-methylthiopropionaldehyde or methyl beta-methylthiopropionate as they are sometimes called) that the latter can be a derivative of the former. It is very likely that the methyl beta-methylmercaptopropionate may also be derived from methionine in the pineapple plant first as the methylmercaptopropionic acid with subsequent esterification.

It will be of interest to follow the further development of the flavor utilization of compounds which form flavor defects in some foods.

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## Flavor Notes

**T**HERE is a chance that a bill controlling the addition of chemicals to food will be passed at this session of Congress. Hearings have been held over a number of years and in particular those of Representative John Delaney of Queens, New York were noteworthy.

In January of 1956 there were eight bills pending before the House of Representatives concerned with the regulation of food additives, namely, HR 8275, 7607, and 7605 introduced by Representative J. Percy Priest of Tennessee, the Chairman of the Committee on Interstate Commerce of the House; HR 7706, 7764, and 8271 introduced by Representative Joseph O'Hara of Minnesota; HR 5927 introduced by Representative A. L. Miller of Nebraska, and HR 4475 introduced by Representative Delaney. Some of these have been discussed in detail in these columns.

On January 31 hearings on these bills were held by Representative Priest before the subcommittee on health and science of which he is the chairman. In January Mr. Priest expressed the hope that some bill would pass at this session but had doubts that one actually would pass.

Leonard Reiffel, supervisor of nuclear physics at the Armour Research Foundation pointed out that sterilization of foods by nuclear radiation is not just around the corner. While it is known that radiation kills bacteria, he said, "Radiation-sterilized foods taste, smell, and look terrible." He thinks radiation pasteurization is feasible. As noted in these columns several times over the past years, it appears that considerable sums of money are being spent to develop methods for radiation preservation of foods when many simpler and less dangerous methods are available.

It is likely that the Food and Drug Administration would prefer a requirement of usefulness as well as safety for any food additive. This view may be gathered from the opinion expressed by Commissioner G. P. Larrick for he stated, "Although great strides have been made in improving testing technics and testing facilities over the years for determining the safety of a product, there still remains the question of transposing the work from animals to humans. We don't think that risks should be taken unless the additives are of some benefit to the consumers."—*M.B.J.*

### Paul Orsay Heads Flavor Division of van Ameringen-Haebler Inc.

E. Paul Orsay of van Ameringen-Haebler, Inc. has recently been named sales manager for the flavor division of the company. Mr. Orsay



E. Paul Orsay

has been associated with the company in a sales capacity at the firm's Chicago branch since 1950. He has been active in food, beverage, and confectionery circles for 21 years and has served the industry in various capacities as a member of The Institute of Food Technologists, The Amer. Assn. of Cereal Chemists, the Amer. Assn. of Candy Technologists, and as a member of the Research and Development Associates of the Quartermaster Corps and in other trade and professional groups.

Mr. Orsay will head up the Alva Flavors sales activities from his office at the Elizabeth, N. J. plant, where the research and development laboratories, as well as manufacturing facilities and general offices for the flavor division of the company are located. He will reside in Cranford, N. J.

### Bill Requires Prescription for Flavored Drugs

The Proprietary Assn. and the New York State Pharmaceutical Assn. have both registered opposition to a bill introduced in the New York state legislature which provides that the dispensing—except on a physician's prescription—of any medication which has been made palatable by the addition of a flavoring agent, would be illegal.

The title of the bill is "Flavoring of Drugs" and the number is 1090. It provides that:

"A person who, with the intent that a drug or medicine shall be more palatable, flavors such drug or medicine or adds any substance to such drug or medicine without the written prescription of a duly licensed physician shall be guilty of a misdemeanor, and shall be punished by a fine of not more than \$250, or by imprisonment for a term of not more than 6 months, or both. . . ."

### Soft Beverage Makers to Fight Unwarranted Criticism

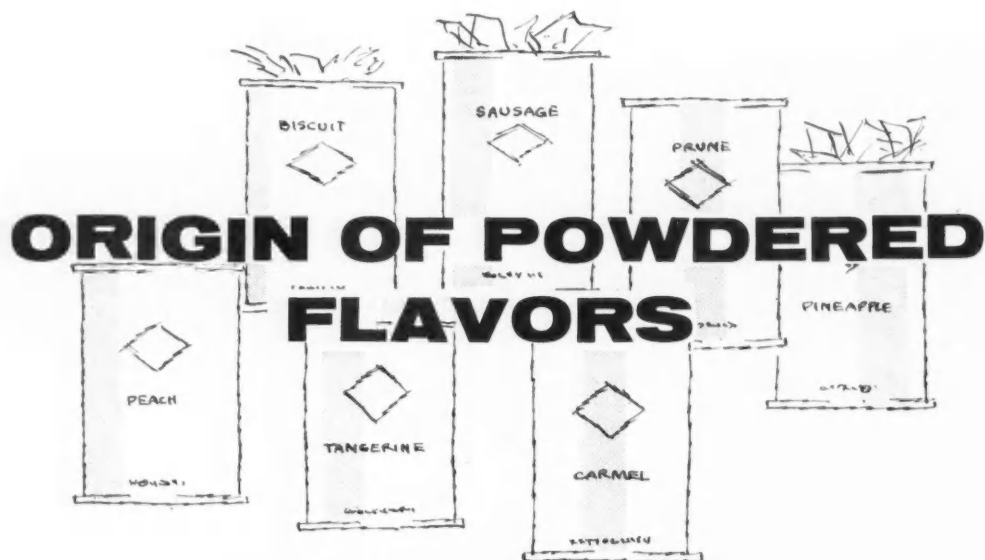
The national organization of the soft drink industry, American Bottlers of Carbonated Beverages, hopes to sell the American public on the health-giving attributes of soft drinks in an advertising program now being developed.

Loring F. Overman, of Washington, D.C., public relations director of the national association, and Thomas Moore, of Minneapolis, president of a Minnesota bottlers' group and national pr committee chairman, discussed the program.

The two declared that there has been unwarranted criticism that the sugar in soft drinks caused tooth decay and diminishes children's appetites, while some physicians erroneously have claimed that carbonated drinks disturb the stomach.

The national carbonated beverage organization, underwriting research at universities and by neutral commercial laboratories, now has evidence that such claims are not supportable.

There is too little sugar in soft drinks to harm teeth, and what there is is washed off the teeth by the liquid itself, Mr. Overman said one study found. Red Cross blood centers, he asserted, serve soft drinks as a fast "pick me up" to donors after they have given blood.



**Evidence submitted by A. Boake, Roberts & Co. Ltd., London, England, indicates that it originated the powdered flavoring medium, which it has been manufacturing and marketing for 25 years.**

**T**HE following interesting communication from A. Boake, Roberts & Co., Ltd., London, England, which has been manufacturing powdered flavors since 1932, indicates that this well known company can rightfully claim to be the originators of this type of flavoring medium. Advertisements printed at the time in British trade journals and a catalog show that the company was manufacturing Drydex protected flavours in powdered form for use in dry mixes over 24 years ago. One of the advertisements bore the headline "Not Flavoured Powders but Powdered Flavours." A micro photograph in it showed the protective principle. The communication follows:

"RECENTLY, a new manufacturer of flavouring materials in powder form has described the process by which these are made as 'revolutionary.' This has prompted another comparatively recent maker to describe their earlier entry into the market with flavours of a similar type. These are the so-called 'sealed in' flavours and the pioneers of this type of flavouring medium were A. Boake, Roberts & Co. Ltd., whose 'Drydex' powdered flavours were introduced in 1932.

"Like many far more important discoveries, the origin of 'Drydex' flavours resulted almost accidentally from a combination of unforeseen circumstances; but there has been nothing at all accidental in the way in which they have attained the standard of quality and effectiveness for which they are renowned. With already a half century experience in flavour compounding behind them, ABRAC exploited the discovery to its fullest extent. As time elapsed, research work was conducted to augment the range of individual flavours to embrace all the main flavour-types the food industry required. At the present time over seventy flavours comprise the 'Drydex' range.

"ABRAC was established in 1869, and from the outset had close associations with the food industry through the

manufacture of caramel colourings and sulphur dioxide preservatives. Since 1890, this association has been strengthened by the manufacture of essence and flavours on a substantial scale.

"In 1927, a spray dryer was erected to dry saponin extracts; but, as this plant was not working to capacity, experiments were conducted on the drying of soft fruit juices—for it was realized that a successful product of this type would have undoubtedly been a useful addition to the range of natural flavours being offered at that time. Initial experiments in this field were encouraging, and a very satisfactory product was prepared by adding a 'filler'—such as liquid glucose—to the juice, prior to drying.

"It was general procedure to add a quantity of ethyl alcohol to the freshly prepared fruit juice, to prevent deterioration during storage; but this practice proved somewhat expensive, for, even in those days, ethyl alcohol was dutiable at the rate of 54/—a proof gallon, and there was no practical means of recovering it from the drying process.

"To reduce this cost, a batch of juice was preserved with non-dutiable iso-propyl alcohol; and, to the astonishment of the two young chemists—F. Wilkinson and G. N. Revie—engaged on the project, a strong taste of I.P.A. was detectable in the dried juice. To their credit, they realized the importance of this and, without cleaning down the dryer, they worked through the night substituting other alcohols and esters for the iso-propyl alcohol. In almost every case, there was very little loss of the added material—despite its high volatility.

"The dried fruit juice project was immediately discontinued, and the programme changed to the drying of complete mixtures of esters on a glucose base, and later on a gum base, with the object of producing a range of flavourings in true powdered form.

"One of the interesting features of the powdered flavours produced in this fashion is their almost complete



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## FLAVOR SECTION

lack of volatility: a micro-photograph demonstrated that the gum actually encases droplets of the flavouring esters; but this effect is most likely supplemented by the esters being strongly absorbed by the surface of the gum. Which of these effects is predominant is really of no importance, for it is a practical fact that as soon as the powdered flavouring is wetted, the gum base disintegrates and the full flavour is released into its surroundings.

"The success of the project was immediate. The production of pudding powders and jelly crystals, which had previously involved spraying the flavour on to the powdered ingredients and then carefully drying it off, became a simple mixing process; and, in England at all events, the advantages that these new flavours held—both as regards stability and the ease with which they are incorporated in the final product—gave a definite

boost to the manufacture of powdered foodstuffs in general.

"In 1932, the largest single order for one particular 'Drydex' flavor amounted to 120,000 lbs. At that time, such an order strained the existing plant to the utmost; but now, 25 years after, with increased facilities and new plant, such an order would be taken as a matter of course.

"For many years, 'Drydex' flavours had the field entirely to themselves, although the process was never patented. It is skill in compounding and 'know-how' regarding dryer design and operation that ensure a satisfactory product. ABRAC, the originators of the process, with accumulation of knowledge and experience gained over twenty-five years of actual manufacture, have established a lead which places them well in the forefront of manufacturers of powdered flavours."

### National Fruit & Syrup Manufacturers Meet May 11-12

The National Fruit & Syrup Manufacturer's Assn. will hold its 39th annual convention on Friday and Saturday, May 11 and 12, 1956 at the Traymore Hotel in Atlantic City, N. J.

It is the first two day convention the association has ever held. This has become necessary due to the rise in membership and particularly to the larger scope of work being done by the Association to aid the entire industry.

A prominent speaker to be announced will be the highlight of a convention completely planned for the benefit of all members, their wives and guests.

### Ungerer & Co. Handles Exchange Brand Oils

Sunkist Growers Products Department of Ontario, Calif. has announced that Ungerer & Co., Inc., New York City, is its representative for the sale of Exchange Brand lemon and orange oils.

Fritzsche Brothers, Inc., and Dodge & Olcott, Inc., also handle the products.

### Perry Bros., Inc. Enters Flavor Field

A new subsidiary to handle its expanding flavor business has been established by Perry Bros., Inc. The new Perbro Laboratories divi-

sion of the firm will manufacture a wide line of essential oils and flavor bases for the pharmaceutical, beverage and food fields.

Ben Perry, vice president, has appointed two research chemists. Herbert J. Bass will be in charge of the technical service program and Allen J. Baron in charge of control and production.

### Dodge & Olcott, Inc. Publishes Flavor Catalog

Just off the press and available for general distribution is the "Reference Book and Catalog of Flavors and Seasonings" published by Dodge & Olcott, Inc. The book, which was more than a year in preparation, contains basic flavor and seasoning information. Numerous formulas, tables, and a large reference chart for quick determination of flavor types for specific products are included.

### Poppy Cannon Urges Food Packers to Become Taste Conscious

Manufacturers of canned foods are being stampeded by price considerations and forget that they are selling food and that the most important factor in food is flavor, Miss Poppy Cannon, food editor of *House Beautiful*, stated at the Northwestern Cannery Assn. convention. "Become taste conscious. Be concerned about flavor. Who cares about flavor or fragrance? The answer is simple: the consumer cares."

### Pending Legislation Affecting the Flavor Industry

The following legislative bills have been introduced in the various states:

Alabama—House Bill 189, a soft drink tax of 2 cents per bottle.

Georgia—Senate Bill 47, prohibiting the sale of drugs in vending machines. House Bill 263, licensing makers, bottlers and distributors of soft drinks and soft drink syrups.

Kentucky—House Bill 48, to prevent vending machines in schools for the dispensing of candy or soft drinks. House Bill 212, imposing an excise tax on bottled soft drinks and fountain syrups. Payment to be indicated by tax stamps.

Massachusetts—House Bill 94 amending the trade mark act requiring renewal after 20 years.

Michigan—House Bill 50 permitting manufacture of food and beverages containing saccharin, sodium cyclamate or calcium cyclamate when so labeled. House Bill 133, amending misbranding section of state food law. House Bill 135, revenue measure permitting registration of first ten syrups or extracts at \$5 per brand and all brands in excess of ten at \$3 to be deleted. Bill should be opposed in its entirety.

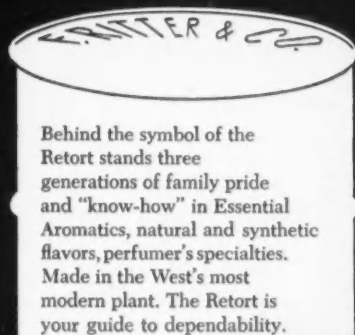
Mississippi—House Bill 189 imposing manufacturers tax on soft drinks at 1¢ per bottle. Should be opposed.

New York—Assembly Bill 1897 to establish a department of the consumer.



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OF MATCHLESS QUALITY,  
PURITY, UNIFORMITY**



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## PRODUCTS & IDEAS

### INSULATING TAPE—1

The insulation of laboratory and other equipment is said to be expedited by the use of a new tape offered by Fisher Scientific Co. It is made of plain, purified asbestos, 1/32 inch thick, in widths of 1, 1½ and 2 inches and in rolls 100 feet long. The tape is claimed to be more versatile as well as tougher and easier to handle than the paper sheets usually used for such insulation.

### INDUSTRIAL FILTER—2

New devices to increase performance and convenience have been incorporated into its vertical filters, announces the Industrial Filter & Pump Mfg. Co. These include filter leaves that can be lifted from the manifold without unbolting, bottom and top outlet leaves, quick opening cover, jacketed shell, bottom opening filter chamber, and individual leaf outlets. The manufacturer recommends the machine for the filtration of water and chemicals in the manufacturing processes of cosmetics, foods, sugar, alcohols, alkalies, detergents, soap stocks and other products.

### LIQUID-FEED BLENDER—3

Patterson-Kelley Co., Inc., announces a new type of liquid-feed

blender for commercial processing that blends liquid and dry materials in one operation. Effective dispersion is said to be achieved by a combination of slinging and wiping actions. The device consists of an intensifier bar which revolves inside a twin shell blender. A cylindrical wire cage, which surrounds the bar and revolves with it, is designed to prevent the formation of clumps. The blending equipment is expected to benefit the plastics, pharmaceuticals, chemicals, food processing and other industries.

### COLOGNE SPRAY UNIT

The DeVilbiss Co. has released a new cologne spraying unit for fragrance promotion. The device can be used to perfume the entrance, vestibule, cosmetic counter or other section of a store, and is said to be effective for both indoor and outdoor fragrance promotion. The company provides additional information upon request.

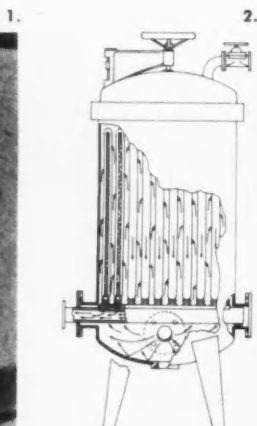
### PLASTIC PIPE

The Carpenter Steel Co. is now marketing rigid unplasticized PVC (polyvinyl chloride) pipe. Two types are available: a normal impact grade with high chemical resistance, and a high impact grade with less chemical resistance but

greater strength. Threaded and socket types of fittings are available. The pipe can be formed, sawed, threaded, machined, hot gas welded and solvent cemented. Installation is said to be simple and inexpensive. It is available in nominal sizes ranging from ½ to 4 inches, and furnished in standard 10 and 20 foot lengths with plain ends. The materials are said to be only one half the weight of aluminum and to have outstanding aging characteristics.

### AKLARYL SULFONATE SERIES

Ninol Laboratories, Inc., is making available a series of alkyl aryl sulfonates for use in aqueous detergent systems, emulsifiers, lube oil additives and corrosion inhibitors. The range makes possible the selection of a sulfonate with the proper hydrophobe or hydrophile balance for any given application, the company says. In emulsification the members may be blended to obtain the correct polarity, and blends of the sulfonates with nonionic types may also be made for special applications. The water soluble Ninex products are used as coupling agents, foamers, dishwashing detergents and shampoos. In addition to the commercially available members of the series, the company also offers experimental samples of tailor made sulfonates.







topical antibiotic products  
are on the move...

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● Neomycin, polymyxin and bacitracin are being used more and more for treating a variety of infections of the skin, eye, ear, nose and throat.

These three antibiotics are preferred for use in topical preparations because:

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4. They are rarely used systemically.

As evidence of the safety of these anti-microbial agents, you can now use them in certain ointments, creams, lotions, drops, etc., that can be sold over the counter.

When you formulate such products, Pfizer, the world's largest producer of antibiotics, can help you with up-to-date information, including application data.

And from a nationwide network of warehouses, Pfizer can supply you, in a hurry, with *bulk* quantities of neomycin, polymyxin and bacitracin. Neomycin and bacitra-

cin are available in special micronized form for easier preparation of ointments.

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# NEW Packaging and Promotion



1.

## 1. SIMONETTA

Simonetta, Inc. has introduced a cologne spray mist in its Incanto fragrance. The 2 ounce plastic-coated bottle is polished black, decorated with a Roman column outlined in white, and topped with a golden-brass cap. It is contained in a white box with an all-over design of Simonetta's label-signature and the Roman column motif. The price is \$3.50 plus tax.

## 2. LENTHERIC

A special limited-time offer from Lenthéric consists of two duo packages: one contains Red Lilac Mist and Red Lilac Bouquet, the other Miracle Mist and Miracle Bouquet. Each combination is a \$3.75 value which is presented at \$2.25 plus tax.



2.

## 3. TUSSY

Tussy Cosmétique will present in April two promotional packages of its Bright Secret fragrance. Designated Heartwarmer Sets, each will contain a supply of small cellulose heart-shaped disks on which the fragrance is sprinkled. They are to be worn inside the clothing, so that the heat of the body can diffuse the odor; or to be used as sachets for drawers or closets. The larger set, containing a 2 ounce bottle of cologne concentrate and twelve of the disks, slides into a crimson and gold foil "sleeve;" the smaller is a crimson and gold foil carton which contains a 1 ounce bottle of cologne and six Heartwarmer disks. Each set retails for the price of the cologne alone.

## 4. NORTHAM WARREN

Odorono Swivel Stick Deodorant is being offered by Northam Warren Corp. at a retail price of 69¢ plus tax. The plastic container is cerise with white lettering. The white cap and swivel bottom are grooved for easy grip. The company is presenting a counter display unit and 18 of the sticks to the wholesaler at a special introductory price.



3.

## 5. COSMAIR

Cosmair, Inc. is packaging its L'Oreal of Paris Hair Creme in foiline cartons printed in red, white and blue bands. The product's name is printed in gold on the white



4.



5.



6.

band. A counter display unit, featuring a whimsical drawing of two girls' heads sharing three eyes, is colored in soft pink with copy in red and black. It is designed to hold 12 individual packages tilted in three tiers so that each row is visible. The tilting causes gold seals on the top panels of the cartons to cast medallion-like reflections on the display.

#### 6. YARDLEY

"Give her a compliment, from 'Bond Street'" is the theme which Yardley of London is using to back its line of Bond Street fragrances. New packaging of the complete line makes use of the red, blue and white colors identified with the products. Spearheading an extensive selling campaign was the introduction of a new Bond Street promotion package containing a bottle of toilet water and a purse-size vial of perfume for \$1.25 plus tax. The company is making available to the retailers a window display and a counter display unit designed to show the entire line.

#### 7. BOURJOIS

Bourjois calls its new Evening in Paris package Spring Special. A 2 ounce cologne container and the purse perfume flacon are packaged in a chartreuse, blue and white carton decorated with scenes of Paris. The carton is cellophane wrapped and has a window in the upper corner to reveal the perfume flacon. The retail price is \$1.

#### 8. PRINCE MATCHABELLI

Prince Matchabelli, Inc. has introduced dusting powder and creme sachet as companion products for its Spring Fancy cologne. The latter comes in a box from which a color cut-out of flowers springs up when the lid is opened. The powder and sachet are \$1.50. Four ounces of the cologne costs \$1.50; an 8 ounce flask bottle sells for \$2.50.

#### 9. ELIZABETH ARDEN

Sleek, a depilatory product from Elizabeth Arden, is contained in a collapsible tube. The trade name is emphasized by bold lettering against a plain ground. The cardboard package for the tube repeats the name in the same lettering. The company recommends the product as a safe efficient depilatory. A 4 1/2 ounce size sells for \$2.



7.



8.



9.

THE POPULAR  
is NOW AVAILABLE IN  
A LARGER SIZE  
*because you asked for it!!!*

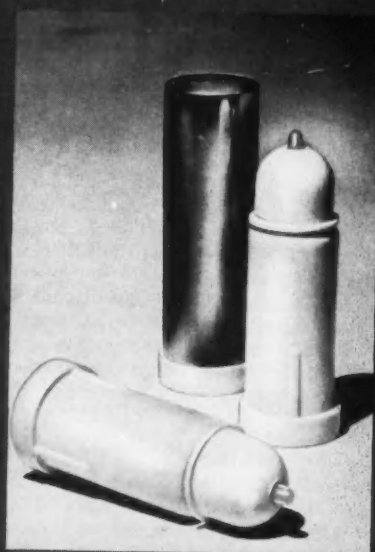
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cap.

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glass bottle with slip-on  
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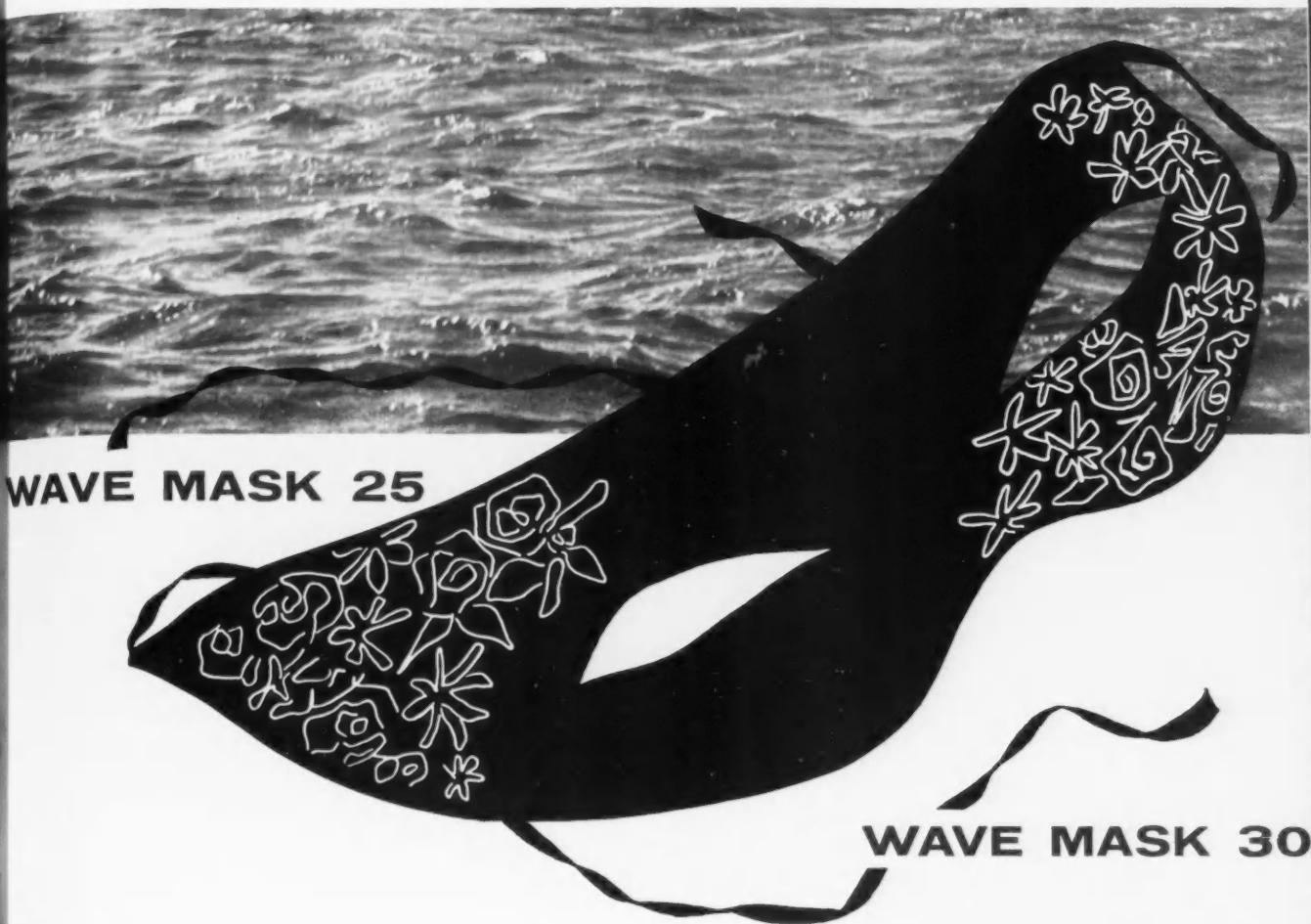
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**WAVE MASK 25**

**WAVE MASK 30**

One of the greatest problems in the formulation of home permanents can now be met successfully with new Synfleur fragrances  
**WAVE MASK 25 and WAVE MASK 30**

Developed in the Synfleur laboratories after long and intensive research into the difficulties posed by the odor of these preparations these new Synfleur fragrances have proven themselves ideal for the purpose. WAVE MASK 25 and WAVE MASK 30 were evolved by skilled Synfleur chemists and technicians as artistic formulations for cold wave preparations. They are based on essential oils and aromatic chemicals carefully screened for stability compatibility and solubility

These basic fragrances can also be adapted for effective economical use in other thioglycolate products where similar masking problems are encountered. Our laboratories are at your disposal to assist in their incorporation. Simply ask for samples data or other help — without obligation.

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 \$3.00 the pound

WAVE MASK 30  
 \$3.75 the pound



*Founded 1889 by Alois Von Isakovic*

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# News

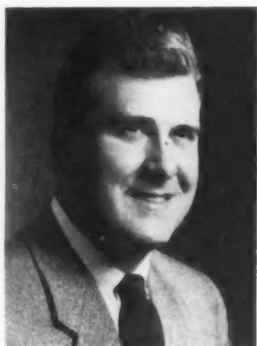
## and Events

### Install New Officers of Chicago Perfumery Assn.

E. R. Kuehne of Mallinckrodt Chemical Works has been elected and installed as president of the Chicago Perfumery, Soap and Extract Assn. for 1956. Mr. Kuehne served the association as vice president in 1955, and for a number of years previously has been active in committee work and on the board of directors.

Other officers installed were: vice president, E. F. LaSarre; secretary, R. B. Harcombe; and treasurer, J. W. Baldwin.

Members of the board of directors are the officers and H. W. Jelly, K. W. Hartley, S. T. Olds, L. F. Haznow, W. A. Frederickson, H. Obarski, J. C. Brown-



E. R. Kuehne

ing, R. E. Kaye, Jr., A. F. Lange, J. P. Helfrich, L. A. Keepper, R. A. Olson and E. Johnson.

The Chicago Perfumery, Soap and Extract Assn. was founded in 1906, and is composed of nearly 400 individuals allied with concerns engaged in the manufacture and sales of cosmetics, drugs, and allied products.

### American Society of Perfumers Announces Officers

The complete slate of officers for the year 1956 has been announced by the American Society of Perfumers, Inc. They are:

Ernest Shiftan, van Ameringen-Haebler, Inc., chairman; Christian F. Wight, van-Ameringen-Haebler, Inc., president; Pierre Bouillette, Givaudan-Delawanna,

Inc., vice president; Dr. Oliver L. Marton, Shulton, Inc., secretary; and Edwin D. Morgan, Lever Brothers Co. treasurer.

The board of directors is comprised of Ernest Shiftan, Christian F. Wight, Pierre Bouillette, Dr. Oliver L. Marton, Edwin D. Morgan, Paul H. Lelong, Theodore Bumiller, Jr., Maurice A. Meunier, and Kenneth L. Walker.

### Federal Trade Commission Cites Revlon

Revlon, Inc. is the fifth of a number of cosmetic industries which have been cited by the Federal Trade Commission for violation of the Robinson-Patman Act. The complaint alleges that the company did not comply with trade practice rules for the toilet goods industry.

The charges are based on statements by the Commission to the effect that Revlon paid allowances and furnished services in varying amounts to some customers and did not pay or offer to pay allowances or furnish services for other competing customers. It is further alleged that the company furnished services to competing customers on unproportional bases; and that the company required certain customers who received allowances to comply with certain terms but did not require others to do so.

### NBBM Directors To Hold Meeting

The board of directors of the National Beauty and Barber Manufacturers' Assn. will hold a dinner meeting on Tuesday evening, June 26, at the Advertising Club, New York City.

### Repeal of Statute Banning Premiums and Coupons Sought

The repeal of a statute which is believed to outlaw the distribution of many kinds of merchandising premiums in Washington, D. C. has been requested by the Premium Advertising Assn. of America. Commissioners of the District of Columbia are reported to be in sympathy with the request. The law was passed over sixty years ago and bans premiums and coupons.

### Dr. Leona Baumgartner Praises Safety of American Cosmetics

Speaking before a meeting of Cosmetic Career Women, Dr. Leona Baumgartner, Commissioner of Health for New York City, praised the high standard of safety of American cosmetics. She pointed out that women of the country spend more than one billion dollars annually for toilet goods with assurance that the products in which they invest present virtually no health problems or hazards.

In interpolated remarks Dr. Baumgartner emphasized the great aid which intelligent use of beauty products is in treatment of delinquents and otherwise handicapped persons. She also outlined the work of the recently established Poison Control Center in working on suspected cases of accidental poisoning through ingestion of possibly harmful substances, and indicated that the toilet goods industry was most cooperative in the project.

At the next meeting of the group, which will be held on April 4, men may be invited for the only time during the year. Wallace Werble, publisher of the "F-D-C Reports" will be guest speaker.

### Morris J. Root Heads SSC Membership Committee

Morris J. Root, technical director of G. Barr and Co., has been named co-



Morris J. Root

chairman of the membership committee of the Society of Cosmetic Chemists. Mr. Root, who will work in cooperation with Michael A. Stanton, the organization's membership chairman, will be active in the Midwest. Membership in the Society is open to chemists and chemical engineers in cosmetic or allied industries.

### Dutch Synthetic Glycerine Plant Ready in 1957

A Dutch firm, Bataafsche Petroleum Maatschappij, has announced that it plans to build a \$6,600,000 synthetic glycerine plant at its Pernis refinery, near Rotterdam, Netherlands. The company, an affiliate of Shell Oil Co., will employ the same process now used by Shell Chemical Corp. The Dutch unit is scheduled to be in operation in 1957.

## Flower Crops in Grasse Hurt by Freezing Weather

Reports from Grasse, France on flower crops are disquieting. This is especially true of the orange flower crop and some suppliers have cancelled prices on all orange flower products. The extent of the damage to the trees by the freezing weather has not been determined as yet but it is reported to be serious. Rose and jasmin are also believed to have been affected by the weather.

## Antibiotics in Cosmetics Effective for Skin Infections

Bacteria which can aggravate pimples, acne and mild skin disorders, and even cause underarm odor, may one day be successfully combatted by antibiotics in cosmetic creams or lotions. Even after prolonged use, these antibiotic-treated cosmetics can be applied without fear of causing allergic reactions or sensitivity, according to Carl P. Hetzel of Chas. Pfizer & Co., Inc., in his address before the February 29 meeting of the New York Chapter of the Society of Cosmetic Chemists.

Mr. Hetzel pointed out that such antibiotics as polymyxin, bacitracin and neomycin already have proved them-

selves valuable to dermatologists for treating skin ailments in that they fight bacteria and speed the healing process. Now that it has been established that bacteria also cause underarm odor, the wonder drugs should be able to fight them, also.

Neomycin has thus far been shown to be most effective against the germ most responsible for underarm odor. Dr. Hetzel pointed out that both neomycin cream and polymyxin ointment have proved themselves valuable to people who cannot tolerate irritation caused by standard aluminum salts used in many deodorants.

## Northam Warren Corp. Announces Price Increases

Northam Warren Corp. has increased the prices on three of its products: #M1, Cutex oily cuticle remover, from 25¢ to 29¢; #210/222, Cutex nail polish, from 25¢ to 29¢; and #239, Cutex pearl polish, from 39¢ to 43¢. All other products will remain at the same retail price level for the time being.

The manufacturer states that this first price rise on these products since their inception is a result of increased operating, labor and raw material expenses which can no longer be absorbed under the old price structure.

## Urge Uniform Drug Laws For Latin America

The February issue of the Bulletin of Di Cyan & Brown, consulting chemists, discusses the need for uniform drug registration among Latin American countries. Compliance with the diversity of often conflicting drug laws in the various countries is said to be a deterrent to American drug manufacturers in introducing products in Latin America. The article recommends the calling of a convention of the interested countries for the uniform registration of drug laws of the western hemisphere.

## van Ameringen-Haebler Elects New Directors

At a special meeting February 29 Mrs. William T. Haebler and Henry G. Walker Jr. were elected to the board of directors of van Ameringen-Haebler, Inc. Mrs. Haebler is a director of the Kurth Maltine Co. Inc. of Milwaukee and Mr. Walker is a partner in the law firm of Fulton, Walker & Halley and is also a director of the Heyden Chemical Co. and the St. Maurice Chemical Co. Ltd. of Canada.

## AMERICAN PERFUMER IS NOW 50 YEARS OLD



William G. Ungerer

With this issue this publication completes its fiftieth anniversary; for it was in March 1906 that the late William G. Ungerer founded it as *Ungerer's Bulletin*. The gifted Mr. Ungerer produced a publication that soon became noted by the industry for its variety of timely information presented in an interesting and effective way and for its reporting of relevant news to the world of perfume production and of cosmetics. In 1907

Mr. Ungerer became president of Ungerer & Co. following the death that year of his father, William P. Ungerer; and then the late Louis Spencer Levy offered his services as publishing assistant to Mr. Ungerer. With the added burdens of his office as president, Mr. Ungerer engaged Mr. Levy to handle the publication of *Ungerer's Bulletin*. The following year Mr. Levy acquired control of the magazine and changed its name to *THE AMERICAN PERFUMER & ESSENTIAL OIL REVIEW*.

Mr. Levy had the good fortune to employ as editor the late Edwin W. Drew, an indefatigable worker with an alert news sense. When Mr. Drew retired Stephen L. Mayham, now executive vice president of the Toilet Goods Assn., became editor. During the years he served in that capacity Mr. Mayham displayed marked skill as a writer of editorials which had a salutary influence on the industry. Under the editorial direction of Mr. Drew and Mr. Mayham *THE AMERICAN PERFUMER & ESSENTIAL OIL REVIEW* enjoyed its greatest growth and prosperity.

In 1935 the publication was sold to the Robbins Publishing Co., predecessor of the Moore Publishing Co. In January of this year the name of the publication was changed to *AMERICAN PERFUMER & AROMATICS*.

The founder of the *AMERICAN PERFUMER*, William G. Ungerer, was one of the most brilliant and colorful men in the industry and was generally respected for his high standards of doing business both here and abroad. He was educated in France and afterward worked in various Grasse, France, raw material houses until he was 20 years old. Then he returned to the United States as an assistant to his father, the late William Philip Ungerer, who at that time was perfumer for Colgate & Co.

In 1893 William P. Ungerer resigned as perfumer for Colgate & Co. to establish an essential oil business at 35 S. William St., New York. In 1895 his older son William G. Ungerer joined him in the firm. A year later his younger son Frederick H. Ungerer followed. In 1901 the business was incorporated as Ungerer & Co. with W. P. Ungerer as president. Directed along sound lines, the company thrived. When W. P. Ungerer died in 1907, W. G. Ungerer was elected president; and upon his death on February 27, 1930, Frederick H. Ungerer became president and treasurer. The company today remains a leader in the field.

William G. Ungerer did much to develop the perfumery and toilet preparations industry in the United States. He was a gifted writer and used this talent freely to advance the interests of the industry. Incidentally, he organized the old Aroma Club. He took great pride in his company and was proud of his associates, as was manifested by one of his literary masterpieces, "The Ungerer Man."

Ungerer & Co is the only concern that has consistently advertised in every issue of the *AMERICAN PERFUMER* from the day it was started as *Ungerer's Bulletin* to the present.



At Lancôme's annual dinner in Paris, France, M. Armand Petitjean, President-Director of Lancôme S.A., was presented with the Grande Medaille d'Or of the City of Paris by M. Feron, president of the Municipal Council of Paris, in recognition of M. Petitjean's contribution through Lancôme to French prestige in Paris and throughout the world.

#### New York Chapter of SCC To Hear Talk on Color

The next meeting of the New York Chapter of the Society of Cosmetic Chemists will be held on March 28 at the Brasserie Restaurant, Fifth Ave. and 44th St.

Francis Lewis Wurzburg, Jr., will be featured speaker of the evening. He will give a talk on "Color and Color Controls," a topic of interest to cosmetic chemists.

#### Chesebrough-Pond's (Canada) To Erect New Quarters

Chesebrough-Pond's (Canada) Limited, recently formed through the merger of Chesebrough Manufacturing Co., Consolidated, Montreal, and Pond's Extract Co. of Canada, Limited, Toronto, has purchased an 11-acre site in the town of Markham, northeast of Toronto.

This organization, which manufactures a wide range of toiletries and cosmetics, will consolidate its operating facilities in

Canada with the erection of a modern 61,000 square foot building on the Markham site. Construction will start in the spring of 1956.

The new building, designed to facilitate future expansion, will house Canadian administrative, research and manufacturing operations.

#### SAACI Appoints New Committee Chairmen

New committee chairmen for the Salesmen's Assn. of the American Chemical Industry have been appointed by E. L. Collins, president. The committee heads, approved by the organization's board of directors, are:

Admissions, George W. Poland, Jr.; auditing, Al Wohlwend; "chemical peddler," George T. Bayley; employment, Leon W. Miller.

Entertainment, Harry D. Watson; golf, Stewart Cowell; publicity, Arthur R. Kavalier; sales clinic, Preston F. Tinsley; and welfare, B. J. Shepard.

#### Fragrance Symposium To Be Held by Perfumers

The American Society of Perfumers will hold its second annual symposium on fragrance on March 21 at Essex House, 160 Central Park South, New York City. The program will be on pre-market testing and other aspects of consumer acceptance of fragrance.

An honorary membership in the society will be awarded to William A. Poucher at the meeting.

Speakers are: Pierre L. Bouillette, Givaudan-Delawanna, Inc., "A Perfume Is Born."

Mrs. Miriam Gibson French, McCall's Magazine, "What Fragrance Means to Women."

Pierre Harang, Houbigant, Inc., "Perfume, the Big Gamble."

Dr. Donald H. Powers, Warner-Lambert Pharmaceutical Co., "Use of the Nonexpert Panel for Testing Cosmetic Fragrance."

Dr. Dean Foster, United Testing Co., "Laboratory Pretesting of Cosmetic and Fragrance Products."

John R. Carr, Revlon Products Corp., "A Case History in Fragrance Testing and Evaluation."

Marvin Stein, M. D., Hospital of the University of Pennsylvania, "The Role of Olfaction in Personality."

Gustav Carsch, The Toni Co., "An Olfactory Aptitude Test for the Selection of a Perfume Panel."

Irving Gilman, Institute for Motivational Research, "Perfume and Human Motivations."

Miss Eleanor K. Coen, Lever Brothers Co., "Measuring the Effect of Perfume upon Product Acceptability."

Henry Brenner, Home Testing Institute, "Monadic Type Product Test."

Jean Millon, Coty, Inc., "Psychological Oddities of Perfume and Fragrance."

The symposium committee consists of Everett D. Kilmer, chairman; Pierre L. Bouillette; Andrew B. Farago; Dr. Oliver L. Marton; and Christian F. Wight.

#### Chicago SCC Hears Dr. Ernest Guenther

The March meeting of the Chicago Chapter of the Society of Cosmetic Chemists was addressed by Dr. Ernest Guenther, vice president and technical director of Fritzsche Brothers, who spoke on "The Volatile Oils." The talk was supplemented with color films which Dr. Guenther took in Europe and Africa within the last two years.

Dr. Guenther also lectured and showed his films to the Chicago Section of the Institute of Food Technologists.

#### BIMS of Boston Holds Winter Party

BIMS of Boston held their winter party on February 16 at the Weston Country Club. Prizes were won by Dennis McLaughlin, Dave O'Connell, Bill Platt, Hart Harris, Jr., Fred Garrison, Charlie Hoye, and Ernie Ingham. A special award of a radio was given to F. J. Hailer, Sr.



Theatrical star Martha Wright enjoys a party held by Redbook magazine. Left to right are Jay Perine of Wesley Associates, account executive on the Shulton account; Miss Wright; Harold Hutchins; and Frank Carpenter, Jr., Shulton's vice president in charge of sales.



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## Helene Curtis Executives Report on Cosmetic Industry



Vincent Yager, vice president Harris Trust and Savings Bank; Willard Gidwitz; Gerald Gidwitz

Featured on a recent telecast of "This Is the Midwest" over WBBM-TV in Chicago were Willard Gidwitz and Gerald Gidwitz, respectively president and chairman of Helene Curtis Industries, Inc., who appeared to tell the story of the cosmetic industry in the Midwest. The award winning documentary show is

featuring a series of industrial leaders whose firms and industries have contributed to the growth of the region.

The weekly program is sponsored by Harris Trust and Savings Bank and co-produced by the Chicago Assn. of Commerce and CBS-TV. It rates high in popularity in the Midwest.

## Johnson & Johnson to Launch a New First Aid Cream

Johnson & Johnson, New Brunswick, N. J., plan to launch very soon a first aid cream. It will be white, greaseless, nonodorless and will be packaged in a polyethylene tube. The First Aid Cream the company reports took over almost 24% of the household antiseptic market in test markets in less than three months.

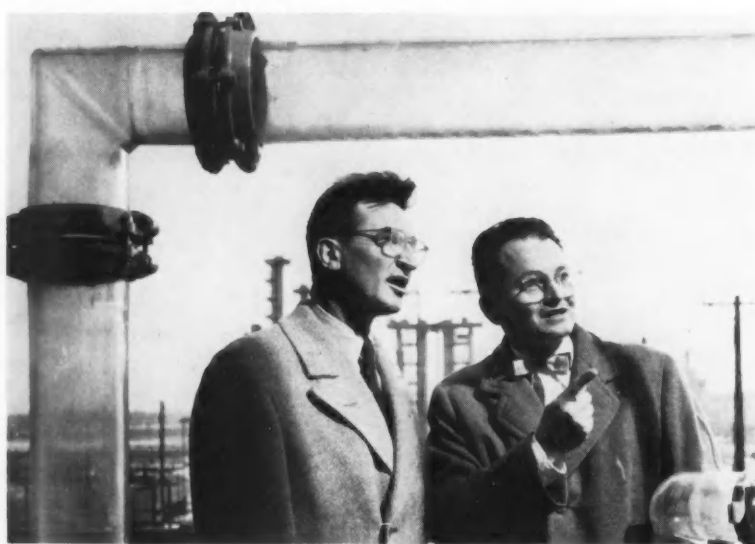
## Colgate-Palmolive Co. in New Offices in New York

The Colgate-Palmolive Co. moved into its new offices in the Colgate-Palmolive

building, 300 Park Ave., New York, N. Y., March 1. The telephone number is Plaza 1-1200.

## Cream Antiseptics Latest Trend in Drug Industry

Unguentine, a standard burn ointment of the Norwich Pharmacal Co. has been changed into a white cream. A miracle pain reliever, Dianestol, has been added, the package and the tube have been redesigned, and the product is now being advertised as a first aid dressing rather than only a burn ointment. It is non-toxic and stainless.



H. N. Fenn, production manager, and W. D. Kuhlman, superintendent of polymer finishing, look over the new production facilities at Dow Corning Corp., Midland, Mich. Near them are a few lengths of the more than half a mile of glass piping installed in the new plant.

## Chris Christensen Given Testimonial Luncheon

Chris Christensen of Charles Pfizer & Co., who retired recently, was tendered a testimonial luncheon at the Lake Shore Club in Chicago in February. Over 70 friends in the drug, chemical and allied fields attended.

Peter Niles, of the Fritzsche Brothers, Inc. Chicago office, presented Mr. Christensen a parchment plaque which acknowledged the work he had done in many organizations and for the benefit of the industry at large.

## Revlon Introduces New Cleanser On \$64,000 Question Program

Revlon Products Corp. has introduced Clean & Clear, a new liquid cleanser on its \$64,000 Question TV program.

## Pharmaceutical Firm Cracks Down on Substitution

Smith, Kline & French Laboratories, Philadelphia, Pa., have cracked down on five pharmacists for substituting on physicians' prescriptions. All were summoned before the Tennessee Board of Pharmacy, all pleaded guilty, and each was warned against a repetition of the offense. The action is part of a sustained drive by boards of pharmacy to crack down on substitution. Similar disciplinary measures have been taken in Massachusetts, South Carolina, Minnesota, Maryland and Indiana.

## ADACIOM of Missouri Enjoys Address by W. C. Nusbaum

William C. Nusbaum was the speaker at the March 14 meeting of the Associated Drug & Chemical Industries of Missouri at the Hotel Chase in St. Louis. Mr. Nusbaum is assistant to the president of the Emerson Electric Co. He was assisted by Maurice Falchero.

## Prof. Irvin H. Blank of Harvard Wins 1956 CIBS Award

Prof. Irvin H. Blank of the department of dermatology of Harvard University will receive the 1956 award of the Cosmetic Industry Buyers & Suppliers at the luncheon of the Toilet Goods Assn. May 17.

It will be the fourth annual CIBS award which is offered annually to encourage more original scientific investigation in the cosmetic industry. The award consists of \$250 and a scroll, and is given for the best paper presented at the two meetings of the Scientific Section of the T.G.A. during the past year. Dr. Blank's paper was "Mechanism of the Action of Agents Used for the Relief of Dry Skin." It is considered to be one of the important contributions to cosmetic science. The award will be presented by David J. Warner, president of CIBS.



## SPOTLIGHT

## News...

**More girls are interested in men than in fashion** according to consumer surveys conducted by Hazel Bishop Inc., and for that reason its Spring and Summer promotion will feature Leap Year Red, a new shade of lipstick and nail polish. National shipments started on leap year day, February 29.

**Hair dye patch tests need be no longer than 24 hours** according to the Food & Drug Administration, which, after hearings in January, decided not to press for a change to a 48-hour test.

**Door-to-door cosmetic salesmen** for Avon Products Inc. are reported to have made sales totaling \$68,000,000 in 1955.

**Fifty-nine gold watches** were presented by Charles T. Lipscomb Jr., president of the J. B. Williams Co. to employees whose company service totaled 2,000 years.

**Between 250 and 300 trademarks** for toilet preparations were registered in 1955 and 52 were registered for soaps according to the T. G. A. trademark correspondent.

**120,000,000 tooth brushes** were sold in the United States in 1954.

**When a package contains fair traded and non-fair traded products** it is not eligible for protection as a fair traded commodity, the U. S. District Court in Baltimore has ruled. The fair traded articles in the package when sold separately are protected.

**Did you know** that about 15 per cent of the nation's corporations produce 75% of the goods. That leaves only 25% of the market to be filled by 85% of the firms who constitute small business. Of the more than 4,000,000 business firms in the United States 99% have fewer than 100 employees.

**Bristol Myers Co.'s profit** in 1955 was \$4,865,752, highest in its history.

**Cosmetic Career Women** will be addressed by Wallace Werble, who compiles Food Drug and Cosmetic Reports, April 4. Men may attend the meeting.

**Castile soap is a meaningless term** as there are no standards for the composition of castile soap, the method of its manufacture, the color or other characteristics of the finished product according to **Today's Health** published by the

American Medical Assn. Castile once meant a soap in which the fat content was 100% olive oil. Now it may mean any bland white soap, according to Mrs. Veronica Conley, secretary of the American Medical Assn. committee on cosmetics.

**Magnetic action** is claimed to be the principle back of "Clean and Clear," a new cleansing lotion being introduced by Revlon Products Corp.

**A flower seed promotion** has been launched by Houbigant Inc., tying in Quelques Fleurs toilettries and flower seeds. Each customer who buys any one of seven Quelques Fleurs toilettries is given three packs of flower seeds with instructions for planting them. As a part of the promotion Houbigant is running a French garden competition featuring trips to France as prizes.

**77% of men use deodorants and 76% use hair oil** according to a survey by Argosy magazine.

**Cosmetic excise taxes for the quarter** ended December 31, 1955 were \$18,060,000, a gain of \$2,287,000 over the same period in 1954.

**Over 2,500** attended the annual dinner of the Drug, Chemical & Allied Trades Section of the New York Board of Trade in the Waldorf Astoria hotel, New York, March 1. Reservations had to be stopped at the 2,500 mark through lack of accommodations. Robert Kazamayer was the speaker and his talk covered American Business and the Changing World Picture.

**Zonite Products Corp.** has changed its name to Chemway Corp. The company owns Lady Esther, Chicago.

**Johnson & Johnson's net sales** in 1955 were \$220,000,000, an all time high.

**Mail order house** Sears, Roebuck & Co. sales in 1955 were \$3,450,000,000.

**A pump type dispenser for liquid face cream** which features a rubber ball instead of a plunger has been introduced by Lady Esther for its liquid 4-purpose 5¼ oz. bottle which retails for \$1.

**The Fragrance Foundation** is participating in the Fourth Annual Fair of the Brooklyn Museum by presenting a perfume display. The theme is "It's Always Time for Fragrance."

### MR. JEAN R. L. MARTIN

Formerly Director, General Research Laboratories, Coty Products Corporation, New York, and

### DR. YOLANDA VALER

Formerly Assistant Director, General Research Laboratories, Coty Products Corporation, New York

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### Essential Oils Symposium Is Held in India

A four-day symposium on research and development of Indian essential oils and aromatic chemicals was held in Dehra Dun, India, last October. The meeting, under the joint auspices of the Forest Research Institute and the Council of Scientific and Industrial Research, was attended by about one hundred delegates who represented various sectors of the industry. A large number of research papers from various sources were read and discussed by the participants.

The chairmen were Prof. M. S. Thacker, director of the Council of Scientific & Industrial Research; Shri K. L. Aggarwal, I.F.S., president of the Forest Research Institute and Colleges; Dr. K. L. Moudgill, D.Sc., deputy director of the Indian Standards Institution; and Shri A. K. Menon, chairman of the Essential Oils Research Committee of the Council of Scientific and Industrial Research.

Dr. Punjabrao S. Deshmukh, Union Minister of Agriculture, gave the inaugural address, in which he appealed to those present to work together in returning India to its traditional pre-eminence as a producer of perfumes and aromatics.

Dr. Deshmukh also officiated at the opening of an essential oils exhibit which was highly appreciated for the extensiveness of its presentation.

The delegates stressed the need for the creation of a governmental

post of Extension Officer, whose main duties would be the translation of results of research into practice through the propagation of suitable species of plants.

### Realistic Co. Acquires New Site

The Realistic Co., one of the longest established manufacturers of permanent waves and allied hair preparations in the country, recently announced the purchase of a large industrial holding in Cincinnati. The property consists of three acres of land on which there are an office building and three factory buildings. Manufacturing operations of the company will be installed on the new site about July 1.

### TGA Sets Standards For Triethanolamine 98 %

The Board of Standards of the Toilet Goods Assn., Inc. on January 27 issued its specification number 58, which defines and sets the standards for triethanolamine 98%.

### Union Carbide Reduces Silicone Oils Prices

Union Carbide and Carbon Corp. announces a reduction in the prices of dimethyl silicone oils and their emulsions. For quantities of one gallon or more the decrease amounts to 7½ per cent. The company's Silicones Division markets the products as L-45, L-46, and L-50.

### Shulton Holds Latin American Sales Meeting

Shulton, Inc., held its first Latin American sales meeting, January 4-6, in Havana, Cuba. The purpose of the meeting was to discuss the advertising, merchandising and promotional plans for 1956, and the new products to be introduced during the coming year. Attending the meeting were sales representatives and managers from Shulton subsidiaries throughout Latin America including Cuba, Mexico, Venezuela, Colombia, Puerto Rico, as well as executives of the International Division who attended from New York.

George L. Schultz, president of Shulton, opened the meeting, which was held entirely in Spanish, with a welcoming address and a review of 1955, the most successful year in the history of the company since its origin 22 years ago.

### Packaging Exposition Scheduled for April

The Silver Anniversary Packaging Exposition of the American Management Assn. will be held in Atlantic City, N. J., April 9-12.

The annual A.M.A. Packaging Conference, scheduled to accompany the exposition, is expected to attract over 1,000 specialists in packaging, shipping, traffic management, materials handling, and merchandising.

The headquarter offices of Jeunesse are located in Dallas, Tex.



At the essential oil symposium at Dehra Dun, India, Dr. Sadgopal explains a demonstration board for Indian vetiver roots and oil, which shows such information as distribution and availability of the roots and physiochemical properties of the oil to an attentive audience.



Dr. Sadgopal of India explains the latest specimens of packing materials to Dr. P. S. Deshmukh, the Union Minister of Agriculture.



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**William H. Barlow  
Receives Honor**

William H. Barlow, a pioneer of the American Society of Perfumers, and its secretary since its organization, was honored recently by the presentation of a \$500 war savings bond as a tribute from the association for his years of work and devotion.

Well known in the field, he has been associated with the essential oil and aromatic chemical industry since 1914. He was graduated as an industrial chemical engineer from Pratt Institute and immediately began work in the essential oil laboratory of the National Aniline & Chemical Co. At the beginning of World War I he was called upon to develop methods of manufacturing essential oils and aromatics up to which time the company had done little. His work was so successful that he was made chief chemist in charge of all laboratory and manufacturing operations. He was called to serve in the army but on account of the importance of his work he was returned to the laboratory and manufacturing operations. He left the company to do consulting work but abandoned this to become manufacturing and research chemist for the Dodge & Olcott Co. in association with the late Dr. Francis D. Dodge.

In 1920 Mr. Barlow won the second prize of \$1500 in an international perfume contest conducted by the AMERICAN PERFUMER on behalf of one of the largest toilet goods manufacturers. He then joined the O. A. Brown Co., where he developed the entire line of perfume compounds and specialties; and from 1923 to 1929 he was perfumer and treasurer for the E. M. Laning Co. He then took a well earned vacation of six months traveling by motor on a 12,000 mile trip to the principal places of natural and historical interest. After that he was in demand as a lecturer for numerous organizations. All of his lectures were illustrated with motion pictures taken by himself. His skill won him honorable mention in the International Amateur Motion Picture contest sponsored by a Hollywood publication.

In 1933 he became chemist-perfumer for H. C. Ryland Inc. but left in 1939 to become director of the research laboratory of Orbis Products Corp., a position he still holds. He has always been active in alumni affairs of his alma mater and was president of the Chemical

Engineering Alumni. As a result of his ability as an organizer the Pratt Institute Alumni Federation, coordinating the alumni work of five schools of the Institute, came into existence. It had a membership of 20,000 graduates. In 1933 he was the third recipient of the Dr. Charles M. Allen Medal awarded for outstanding service to the Institute. He is now permanent chairman of the Medalists, a group consisting of those who have been similarly honored.

**Northam Warren Accelerates  
Sales and Advertising Programs**

Northam Warren Corp., manufacturer of Cutex lipsticks, manicure preparations and Odorono deodorants, has announced an acceleration of its sales and advertising programs for the coming year. Plans call for a number of new products to be introduced during 1956 and the backing of the sales campaign by an expanded advertising budget on both Cutex and Odorono products.

**TGA Scientific Section  
Schedules Meetings**

The dates for the spring meetings of the Scientific Section of the Toilet Goods Assn., held on the last day of each annual convention, have been set for the next three years. They are: May 17, 1956; May 9, 1957; and May 15, 1958.

The winter meetings are scheduled for December 12, 1956; December 9, 1957; December 8, 1958; and December 7, 1959.

**William Lakritz  
Lands A Big One**

William Lakritz, president of Florasynth Laboratories, Inc., recently used a business trip to land a big one—in fact, a really big one, 9 feet 4 inches, 91 pounds of fighting sailfish. The catch was made at the famed Acapulco fishing run, and duly recorded in the boat's official sailfish ledger and certified in Acapulco.

Organization and client business in Central and South America, ostensible reasons for the trip, are reported to be active, with considerable progress already made in the 1956 plans for these divisions.

**Foster D. Snell, Inc.  
Adds West Coast Laboratory**

Appointment of Biochemical Procedures, Beverly Hills, Calif., as the West Coast laboratory of Foster D. Snell, Inc., New York City firm of consulting chemists and engineers, has been announced by Dr. Foster D. Snell, president and chairman of the board.

**Salary Administration Is  
Subject of Seminar**

A three-day seminar on the problems of salary administration in contemporary business will be held in New York City, March 20-22. Conducted by the firm of Rogers, Slade & Hill, consultants to management, the discussions will be under the leadership of Theos A. Langlie and Richard C. Smyth.



Dr. Reed A. Gray, plant physiologist who won first award of \$1,000 in the 1955 Glycerine Research Awards for his discovery that glycerine increases the effectiveness of antibiotics against plant diseases is seen in the experimental greenhouse of Merck & Co.

## House-to-House Cosmetic Sales increased in 1955

According to the latest survey of the Beauty Reader Forum of the Fawcett Women's Group, house to house salesmen of cosmetics increased sales over 1954. Drug stores dropped very slightly in sales and food stores were relatively insignificant in total sales.

## Beauty Shop and Haircut Prices Continue Rise

Prices of beauty shop treatments and haircuts in barber shops rose slightly in the last quarter of 1954 according to the Bureau of Labor Statistics in its Consumer Price Index. In December 1954 haircut prices were 5% above 1952 levels while prices of beauty shop services rose 6% in the same period.

## BIMS of Boston Announces Change of Officers

At a recent meeting of the Executive Committee of BIMS of Boston, Fred Garrison, of the New England Confectionery Co., was elected treasurer. Herbert Stephens, U. S. Printing & Lithograph



Harry D. Armitage (center), New York sales representative of Emery Industries, Inc., receives his 30-year pin from A. W. Schubert, executive vice-president. Looking on is K. K. Boyd (left), who is the company's vice president in charge of sales and purchases.

Co., resigned from the Executive Committee and F. J. Hailer, Sr., Rexall Drug Co., was elected to the Committee.

The organization announces the schedule of parties for the year as follows: Winter party, February 16; Ladies Night, April 14; and golf outings on June 28, August 16 and September 11.

## J. H. Hille Moves into New Offices in Chicago

J. H. Hille, midwest representative for Reheis Co., Schimmel & Co. and Distributing and Trading Co. has moved into new and larger offices at 168 North Michigan Ave., Chicago 1, Ill. The telephone number is Financial 6-4543.



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Lord and Taylor featured Jean Naté bath preparations in one of its Fifth Avenue windows during the store's January sales. The color scheme was yellow and cocoa. On the bath cart and on the edge of the tub were different presentations of the company's bath products.

#### Royalty-free Patents Are Described

More than 900 government-owned patents available for private use on a royalty-free basis are described in the *Patent Abstract Series Supplement*, which has been published by the Office of Technical Services, Washington 25, D. C. It lists all the patents acquired by the government during the period January 1954-June 1955. Information on how to obtain use of the patents without payment of royalty to the inventor is set forth.

#### Peggy Sage, Inc. Adds Sales Personnel

Miss Peggy Sage, president of Peggy Sage, Inc., announces the addition of three new members to her sales organization.

W. T. Stevens will act as sales manager with headquarters in the office at Stamford, Conn. He will be assisted by Howard Johnson as office manager.

Miss Mae Enright has been chosen to act as the company representative in New England and New York State.

#### New Whaling Firm for Latin America Organized

Mancora Industrial S. A. has been organized in Quito, Ecuador, and has obtained permits from the tripartite commission of Chile, Ecuador and Peru to catch whales in the 200 mile zone along the coasts of the three countries. The total annual quota for deep sea whaling in the zone is 2,100 sperm whales.

#### Dodge & Olcott Selects Achievement Award Committee

Judges for the 1956 Dodge & Olcott achievement award for outstanding contribution to the growth and development

of the meat packing industry have been announced. The panel, consisting of six members selected from various phases of the industry, is headed by H. Harold Meyer, president of the H. H. Meyer Packing Co.

The annual award, established in 1954 as a service to the industry, consists of \$1,000 and a gold medallion.

#### Elizabeth Arden Opens New Salon in Madrid

Elizabeth Arden has moved her Madrid salon to new and larger quarters on the Plaza de la Independencia. The building in which it is located was erected in 1889 at the request of the Duchess of Prim. Miss Arden has incorporated extensive alteration to make the location a modern comfortable beauty salon, while at the same time retaining the integrity of the historic building.

#### Four Cosmetic Firms Receive Awards

Beauty Fashion awards for 1955 have been presented to the following cosmetic manufacturers: Chanel, Inc., for packaging; Charles of the Ritz, for merchandising policy; Helena Rubinstein, for promotion; and Revlon, for advertising.

Established 17 years ago, the Beauty Fashion awards have served to encourage the maintenance of high standards of merchandising practice in the perfume and cosmetic industry.

#### Hazel-Atlas Opens Indiana Office

The Hazel-Atlas Glass Co. has opened a new district sales office in Indianapolis Ind. William E. Klingensmith, who has been associated with the company's sales activity for many years, will be the district sales manager in charge.

#### TGA Convention Is Scheduled for May 15-17

The annual convention of the Toilet Goods Assn. will be held this year on May 15, 16 and 17 at the Waldorf-Astoria Hotel in New York City. The first two days will be devoted to a business program and election of officers, and the third day to the meeting of the Scientific Section.

Those who plan to attend are urged to make room reservations directly with the hotel, advising of membership in the association.

Robert E. Schwartz, of the Wildroot Co. of Buffalo, New York, is chairman of the business program, which he will announce in the near future.

#### Norda Ltd. Moves to New Quarters in Toronto

Norda Ltd. has moved its offices and warehouse to 833 King St. W., Toronto, Ont. Canada. The telephone number is EMpire 8-1823.

### Obituary

#### Dr. John Walter Sale

Dr. John Walter Sale of the Food & Drug Administration, who was well known throughout the flavoring industry and as a contributor to the American Perfumer on flavoring regulations, died February 20.

Dr. Sale was born August 20, 1883. Immediately after he was graduated from college he entered government service and worked in the Department of Agriculture, Food & Drug Division under Dr. Harvey Wiley the father of the Food & Drug Law of 1906. Later he worked under Dr. Allsberg.

Dr. Sale compiled many data for establishing standards of fruits and also in the production of jellies and other products. He made vital contributions in the beverage and food industries and also had several patents which he unselfishly assigned to the government. One of these was the production of pure maple concentrate on which he and Mr. Wilson, associate in the department, received a patent. Dr. Sale was very well liked and will be remembered by the Department and by the entire food industry particularly the flavoring extract industry.

When the Food, Drug & Cosmetic law of 1938 was enacted he appeared on several occasions before the Flavoring Extract Manufacturers Assn. to clarify the law.

#### William Baird Marble

William Baird Marble, chairman of the Latchford Marble Glass Co., Los Angeles, Calif., died February 26 following a long illness. The company was founded in 1925 by W. J. Latchford Jr. and was the first successful bottle manufacturing concern in the western states.

#### Hattie Carnegie

Hattie Carnegie, courturier and perfumer, died recently in New York City.





## PERSONALITIES

**J. B. Morningstar** of Menlo Park, Calif., has been elected a vice president of Morningstar, Nicol, Inc. Mr. Morningstar, a great grandson of the original



**J. B. Morningstar**

founder of the firm, began his career in 1939 as a member of the production staff of Paisley Products, Inc., a subsidiary of Morningstar, Nicol.

**Harry G. Griffiths**, former president of the Pennsylvania Drug Co., has joined the Pepsi-Cola Co. as manager of chain and drug syndicate store sales.

**W. Wallace Roff**, executive vice president and director of Whittaker, Clark & Daniels, Inc., has been appointed direc-



**W. Wallace Roff**

tor of Canada Tale Industries, Ltd., Toronto, Canada.

**Edward J. Pempsell** has been appointed a vice president of the Wildroot Co., Inc. He will continue to hold the post of comptroller, which he has occupied for three years.

**George W. Shartle** has been appointed national field sales manager of Bourjois, Inc. He has been the company's territorial representative in the Illinois-Wis-



**George W. Shartle**

consin area for the past seven years. He assumed his new duties in the New York office on February 1.

**J. Philip Smith**, assistant to the senior vice president, Chas. Pfizer & Co., Inc., has been promoted to the position of general manager of the company's Chemical Sales division.

**Ernest R. Sloan**, plant manager for Charles of the Ritz in Norwalk, Conn., left for South America on February 25 on a two month inspection tour of manu-



**Ernest R. Sloan**

facturing facilities in Brazil, Uruguay and Argentina.

**John Richard Mairn** of Detroit, Mich. has been appointed to the sales staff of Lady Esther, division of Zonite Products Corp. His territory includes Michigan, Ohio and Indiana.

**Mike Siegel** has been elected president of the Flavoring Extract Manufacturers Assn. of California. Mr. Siegel has been associated with Felton Chemical



**Mike Siegel**

Co. for fifteen years, the last ten of which he has been working in the company's Los Angeles plant.

**Carl K. Raiser** has been named director of distribution for Smith, Kline & French Laboratories, Philadelphia, Pa. He was formerly manager of trade relations. As head of the company's newly created distribution department, Mr. Raiser will have charge of trade relations and product protection activities.

**Charles F. Blum** has been added to



**Charles F. Blum**

the sales staff of the Fine Chemicals division of Shulton, Inc. His territory is New Jersey and parts of Pennsylvania and New York.

**R. G. Kelso and Richard H. Proctor** have joined the sales staff of the Chemical Division of Emery Industries, Inc.

**Francois de Laire**, general manager of Fabriques de Produits de Chimie Organique de Laire, came to the United States recently for his annual visit. He left on February 19 by Air France for Paris after a stay of four weeks during which he attended business and directors meetings of De Laire, Inc. and visited his many friends in the perfume and cosmetic industry.

**Walter G. Dunnington** has been appointed a member of the Executive Committee of the Colgate-Palmolive Co. Mr. Dunnington, a member of the New York law firm of Dunnington, Bartholow & Miller, a trustee of New York Hospital and the Hanover Bank, and a director of the Great Northern Paper Co. and Standard Brands, Inc., has been a member of the company's board of directors since 1953.

**Dr. A. T. Frascati** has joined George Lueders & Co., as technical consultant and specialist on basic materials and compositions employed in fine perfumery. Dr. Frascati has had a wide experience in many branches of the perfume industry, embracing production, research and designing, and has been associated with some of the best known houses in the field. He is a charter member and a past president of the American Society of Perfumers.

**Dr. Victor G. Fourman**, president of Syntomatic Corp., and Mrs. Fourman are back from a tour of the West. In Los Angeles the pair were escorted through the new Max Factor administration and research building by David Factor.

**John F. Chaney** will be district sales manager in the new sales office of the Hazel-Atlas Glass Co. in Milwaukee, Wisc. He has been associated with the company's sales activity for many years.

**Dr. Takeru Higuchi**, professor of pharmacy at the University of Wisconsin, was honored at the Philadelphia College of Pharmacy and Science when he received the Rho Chi Honorary Pharmaceutical Society citation. Dr. Higuchi delivered the Julius W. Strumer memorial lecture on "The Empire Versus the Scientific in Pharmaceutical Research."

**Harold J. Rosen**, executive assistant to the chairman of the board, Helene Curtis Industries, Inc., of Chicago, is head of a new corporate acquisitions department established by the company. He will seek corporate properties to purchase for Helene Curtis and several other companies controlled by the same interests.

**Walter Uphaus**, special traveling representative of Max Factor & Co., is on a ten month tour of Central and South America. He will confer with Max Factor distributors on 1956 advertising, sales and merchandising plans.

**Arthur Goldstein**, chief chemist, Stein, Hall & Co., is in charge of the recently expanded natural gums laboratory at Long Island City, N. Y.

**T. G. Warder**, formerly superintendent of the Hazel-Atlas Glass Co. plant in Pomona, Calif., has been appointed superintendent of the company's newest glass container plant now under construction in Plainfield, Ill. C. L. Wittlinger, who was assistant superintendent of the company's Oakland plant, succeeds Mr. Warder in Pomona.

**Dr. Philip C. Eisman**, director of bacteriological research at CIBA Pharmaceutical Products, Inc., was elected president of the 800-member New York City branch of the Society of American Bacteriologists.

**Philip Libson**, purchasing agent for Max Factor & Co., will serve as one of the judges of the 1956 folding carton competition sponsored annually by the Folding Paper Box Assn. of America as an incentive to better packing.

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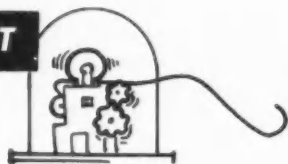
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## MARKET REPORT



### Price Trend Continues Generally on Down Side...

Trade in essential oils, aromatic chemicals and closely related materials was brisk over the past month, but the volume or total sales ran somewhat below the movement noted in the first month of the year. The price trend, while somewhat mixed, continued generally on the down side with losses being recorded in crude

glycerine, red oil, stearic acid, vanilla beans, and several other items. The let-down in sales volume is expected to prove only temporary, as early preparations for the Easter holiday season and a general line of spring and summer items should again lift the raw material market out of the decline.

areas. Shippers in France largely remained on the sidelines, and exports out of Greece were banned some time ago.

#### CRUDE GLYCERINE DECLINE—

Crude glycerine prices dropped a full cent a pound early last month, thus widening the spread between selling prices for refined material and refiners costs of the natural product from soapers. Due to the slow pace at which February bookings for refined material were coming into the market it was first believed that February sales would fall below those of January. Later, however, reports from major refiners indicated that the months volume would compare favorably with the turnover noted in January.

#### GERANIUM OILS FIRMER—

A rise in shipping prices for Bourbon geranium oil was immediately reflected in Algerian oil. Offerings from Marseilles were few and far between and the turn of events in the political situation in Algeria served to make for a degree of uncertainty regarding replacements.

#### MINT OILS FIRM—

Trade in mint oils was fairly steady and prices for both spearmint and peppermint remained firm. The outlook in peppermint is generally regarded as strong since new production is still many months away and supplies of high test material for blending have been rapidly dwindling. Some trade observers are looking forward to a greater export demand for peppermint. The sales upturn should tend to have a further strengthening influence upon the general tone.

#### LEMONGRASS OUTLOOK CLOUDED—

The outlook in lemongrass oil continued highly clouded. The new crop is dependent upon the amount of rainfall in India. If there is ample moisture production of oil should be about equal to last year's output.

#### ALMOND OIL TIGHTENS—

Sweet almond oil expressed, USP., grew scarcer over the past month and some local dealers were forced to withdraw offerings and prices. The crop in California has proved very poor and supplies from Europe have grown increasingly difficult to obtain because of unfavorable crop conditions.

#### OIL SANDALWOOD EASES—

Due to increased buyer resistance to the high prices prevailing in January, the local market for sandalwood oil developed an easier tone. The narrow demand brought about some accumulation of stocks.

### PRICE CHANGES

#### Advances

	Current	Previous
Balsam, Tolu	\$3.85	\$3.65
Oil wormseed	\$3.45	\$3.10
Candelilla wax, crude	0.55	0.50
Olive oil, USP, gal.	\$4.00	\$3.35
Oil geranium—		
Bourbon	\$13.25	\$13.00
Algerian	\$12.75	\$12.50
Castor oil, Brazilian	0.15	0.14 $\frac{3}{4}$
Copra, coast, ton	\$147.50	\$145.00
Citral	\$4.60	\$4.50

#### Declines

Tallow, fancy	0.07 $\frac{1}{8}$	0.07 $\frac{3}{4}$
Oil sandalwood	\$15.50	\$16.50
Vanilla beans—		
Mexican, whole	\$7.50	\$8.25
Mexican, cuts	\$6.50	\$7.50
Bourbons	\$5.00	\$5.65
Gum arabic, amber sorts	0.18	0.19 $\frac{1}{2}$
Glycerine, crude—		
Soap lye	0.18	0.19
Saponification	0.20	0.21
Stearic acid, single pressed	0.14 $\frac{1}{4}$	0.14 $\frac{3}{4}$
Red oil, carlots, drums	0.18	0.18 $\frac{1}{2}$
Oil lemongrass	\$1.90	\$1.95
Menthol—		
Synthetic, laveo	\$6.75	\$7.00
Brazilian	\$6.50	\$7.00
Cocoa butter	0.48	0.48 $\frac{1}{2}$
Oil bois de rose	\$3.50	\$4.10
Beeswax—		
Crude, African	0.70	0.72
Refined, yellow, bricks	0.73	0.75
Safrol	\$1.05	\$1.20
Oil lime, distilled	\$3.00	\$3.25

Prices per pound unless otherwise specified.

#### MENTHOL AT NEW LOW—

Menthol prices dropped to a new low on the downward trend that has featured the market for many months. The natural product from Brazil registered a series of declines over the past month, and at the close, prices ranged from \$6.50 to \$6.65 per pound. Some afloat parcels were reported available at \$6.35 per pound. Although prices for synthetic laveo material lost some ground, the high cost of Formosan citronella oil made it difficult for makers of the synthetic menthol to meet the lower prices that prevailed on the natural product. Japanese menthol was meeting with some demand at prices rang-

ing from \$8.50 to \$8.65 per pound. Only moderate quantities of the Japanese product were to be had on spot or for shipment from Japan.

#### OLIVE OIL SCARCE—

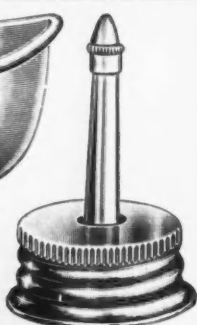
Inquiries for olive oil uncovered a tight supply situation here. Prices, while higher at \$4 to \$4.25 per gallon, were virtually nominal in the absence of firm offerings. Spain announced that it would grant export licenses for about 1,000 tons a month, or about one quarter of the normal quantity. Out of the allocations for 1,000 tons a month, it is understood that about 60 per cent of the exports will be for dollar



  
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